

THE INFLUENCE OF
STAKEHOLDER MOTIVATION
ON THE OUTCOME
OF IT PROJECTS

Hans-Martin Moss

Doctor of Philosophy

De Montfort University, Leicester

July 2010

De Montfort University, Leicester

The Influence of
Stakeholder Motivation
on the Outcome
of IT Projects

Hans-Martin Moss

Doctor of Philosophy

July 2010

This copy of the thesis has been supplied on condition that anyone who consults it is understood to recognise that its copyright rests with its author and that no quotation from the thesis and no information derived from it may be published without proper acknowledgement.

Thesis Abstract and Study Rationale

Recent research estimates that 70 to 90 per cent of IT projects fail to achieve the anticipated outcome. An analysis of relevant studies in Chapter 1 reveals numerous symptoms (project risks) that may explain why IT projects fail to such a large extent, and gives recommendations (risk strategies) on how to improve this situation. However, these recommendations tend to deal rather with symptoms than the underlying cause, and thus the failure rate remains disappointingly high. The analysis of project outcomes in this study suggests that this may be due to the lack of a human-centred philosophy in project management. Consequently, it can be argued that the immense effort in time and resources that has been invested to overcome the identified IT projects symptoms may potentially be wasted. In view of this situation, this thesis intends to go beyond an analysis of symptoms and aspires to make a case for a better understanding of the underlying cause of IT project failure today.

The apparent dead-end situation of IT projects today appears to be sufficient rationale to explore the motivation of IT project stakeholders, which, as seen from a human-centred perspective, most likely play a key role in the project outcome. In order to examine this complex social phenomenon, a multiple embedded case study strategy had to be implemented. For this reason, this study is supported by relevant academic literature providing a ‘motivational lens’ through which the qualitative data can be viewed.

The ethnographic element, both for data collection and analysis, furthermore allows a bottom-up approach to research, which endeavours to refrain from pre-assumed situations or an up-front definition of the involved stakeholders. For this purpose, this study has created the IT Project Process Generic Stakeholder Model.

By looking through the lens of motivation this study intends to work towards an underlying cause explanation as to why IT projects fail to deliver the projected outcome. It appears that a better understanding of this situation may contribute significantly to the improvement of IT project outcomes in the future. In order to elucidate this problem-solving approach, this study provides the IT Project Process Model.

Key words:

project management,

critical success factors,

project risk,

risk strategies,

project stakeholder,

motivation,

human-centred philosophy

Acknowledgements

I would like to acknowledge and thank the following for their advice during the preparation of this thesis:

Professor Dr. David Crowther

Professor Dr. Elaine Harris

Contents

1	Examination of an Underlying Cause.....	17
1.1	Summary.....	17
1.2	Introduction.....	17
1.3	The IT Project Situation Today.....	19
1.3.1	The Tragedy	19
1.3.2	An Inspection of Symptoms and an Underlying Cause	21
1.3.3	Critical Success Factors.....	22
1.4	The Classification of Symptoms	28
1.4.1	Project Management Methodology	29
1.4.2	Quality Management	30
1.4.3	Project Environment.....	33
1.4.4	General Recommendations.....	35
1.5	An Underlying Cause Explanation.....	37
1.5.1	The Current Project Risk Research Debate	37
1.5.2	The Project Process Generic Stakeholder Model	38
1.5.3	The Lens of Motivation	38
1.5.4	Contributions	39
1.5.5	Structure of this Study	40
1.6	Conclusion	42
2	A Holistic View on the IT Projects.....	43
2.1	Summary.....	43
2.2	The Project Stakeholders	44
2.2.1	The IT Project Process Generic Stakeholder Model	44
2.2.2	Stakeholder Discussion	45
2.3	The Project Environment.....	47
2.4	Project Management Methodologies.....	51
2.5	The Project Life Cycle.....	56
2.5.1	The Project Initiation Phase	56
2.5.2	The Project Planning Phase	57
2.5.3	The Project Execution Phase.....	58
2.5.4	The Project Handover Phase	59
2.6	Project Success	60
2.6.1	Project Management and Project Success	60
2.6.2	Project Success Criteria.....	61
2.6.3	Project Outcome Assessment	63
2.7	Conclusion	63

3	Motivation in the Work Environment	65
3.1	Summary	65
3.2	Motivation and Resistance	65
3.2.1	Intrinsic Motivation	65
3.2.2	Extrinsic Motivation	67
3.2.3	Toward Resistance	69
3.3	Motivation Theory	71
3.3.1	Motivation Theories for the Work Environment	71
3.3.2	Selecting a Motivation Theory	74
3.4	Organizational Culture	76
3.5	A Global Focus on IT Projects	78
3.6	Conclusion	81
4	Research Methodology and Design	82
4.1	Summary	82
4.2	The IT Project Process Model	82
4.3	Research Strategy Discussion	85
4.3.1	The Traditional Strategy: A Survey based on Quantitative Evidence	86
4.3.2	New Research Outcomes require a Different Approach	88
4.3.3	Primary Source of Evidence: Ethnography	91
4.4	Overview Research Methodology	96
4.5	Constraints	97
4.6	Boundaries and their Hidden Dilemmas	99
4.6.1	Entry Point	99
4.6.2	Ethical Considerations	100
4.6.3	Exit Point	101
4.7	Skills of the Researcher	102
4.7.1	Interview Technique	102
4.7.2	A View on the Operating Company	102
4.7.3	A View on the Vendor	103
4.7.4	General PM Knowledge	103
4.8	Preparation for the Field	104
4.8.1	Case Study Database	104
4.8.2	Coding Handbook	106
4.8.3	Jottings	107
4.8.4	Writing up Field Notes	111
4.8.5	Interviews	112
4.8.6	Collection of Documents	113
4.8.7	Letter of Introduction including Ethical Consideration	114
4.9	Conclusion	114

5	Holistic View of Project1.....	116
5.1	Summary.....	116
5.2	Fieldwork: The Coding Process.....	116
5.2.1	Fieldwork: Collecting Data	117
5.2.2	Fieldwork: Coding Data	117
5.2.3	Fieldwork: Case Study Database.....	119
5.2.4	Fieldwork: Template Analysis	120
5.3	Introduction.....	121
5.4	The IT Project Outcome.....	122
5.4.1	Project Distinction	122
5.4.2	Meeting Schedule Objective	123
5.4.3	Meeting Budget Objective.....	124
5.4.4	Meeting Technical and Functional Objectives	125
5.4.5	The Impact on the IT Project Outcome	126
5.5	The Project Environment.....	129
5.5.1	The Organizational Culture	129
5.5.2	The Socioeconomic Environment	136
5.5.3	Template Analysis of the Organizational Environment	136
5.6	Template Analysis of the Applied Project Management.....	137
5.7	Conclusion	139
6	Units of Analysis in Project1	140
6.1	Summary.....	140
6.2	Unit of Analysis: User.....	141
6.2.1	Resistance of the Unit User	142
6.2.2	The Impact on the Project Outcome.....	145
6.2.3	Template Analysis of the Motivation of Unit User.....	148
6.2.4	Discussion	152
6.3	Unit of Analysis: Vendor.....	155
6.3.1	Resistance of the Unit Vendor.....	156
6.3.2	The Impact on the Project Outcome.....	163
6.3.3	Template Analysis of the Motivation of Unit Vendor	164
6.3.4	Discussion	169
6.4	Unit of Analysis: PM.....	173
6.4.1	Resistance of Unit PM in Project1	173
6.4.2	The Impact on the Project Outcome.....	179
6.4.3	Template Analysis of the Motivation of Unit PM, Project1	179
6.4.4	Discussion	185
6.5	Conclusion	186

7	Holistic View on Project2	187
7.1	Summary	187
7.2	Introduction.....	187
7.3	The IT Project Outcome	189
7.3.1	Project Distinction.....	189
7.3.2	Meeting Schedule Objective	189
7.3.3	Meeting the Budget Objective.....	191
7.3.4	Meeting Technical and Functional Objectives.....	193
7.3.5	The Impact on the IT Project Outcome	194
7.4	The Project Environment.....	198
7.4.1	The Organizational Culture	198
7.4.2	The Socioeconomic Environment	199
7.4.3	Template Analysis of the Organizational Environment	200
7.5	Template Analysis of the Applied Project Management.....	201
7.6	Conclusion	202
8	Unit of Analysis in Project2	204
8.1	Summary	204
8.2	Unit PM of Project2.....	204
8.2.1	Resistance of Unit PM inProject2	204
8.2.2	The Impact on the Project Outcome.....	208
8.2.3	Template Analysis of the Motivation of Unit PM in Project2	210
8.2.4	Discussion	212
8.3	Conclusion Project2.....	214
9	Analysis of the IT Project Process Model.....	215
9.1	Summary	215
9.2	The IT Project Process Model	215
9.3	Holistic View.....	216
9.3.1	The Project Environment	216
9.3.2	Applied Project Management Methodology	231
9.3.3	Summary: Holistic View	233
9.4	Motivation of all Stakeholders.....	235
9.5	For Improvement of the Project Outcome	237
9.5.1	Unit 1: User	237
9.5.2	Unit 2: Vendor.....	238
9.5.3	Unit 3 PM, Project1	241
9.5.4	Unit 4: PM, Project2.....	244
9.5.5	Summary of the Impact on the IT Project Outcome	246
9.6	Conclusion	248

10 .Conclusion on the Influence of Stakeholder Motivation	249
10.1.. Research Approach to this Study	249
10.1.1 Importance of Research Methodology and Design.....	249
10.1.2 The IT Project Process Model.....	249
10.2.. The Finding: An Underlying Cause Explanation	251
10.2.1 The Current Project Risk Research Debate.....	251
10.2.2 Contribution of a Different View	254
10.2.3 Findings for Related Research	255
10.3.. Limitations of this Study	256
10.3.1 Quality of the Collected Data.....	256
10.3.2 Theories and Models	256
10.3.3 Applicability of the IT Project Process Model.....	258
10.3.4 Generalisability	259
10.3.5 Predictive Capability	259
10.3.6 Limitations of this Study	260
10.4.. Reflective Journey	260
10.4.1 Approaching Companies.....	260
10.4.2 Selection of Projects.....	261
10.4.3 Integration into the Project Team.....	262
10.4.4 Learning Experience	262
10.5.. Further Research	265
10.5.1 Delusive Perception of Building Blocks	265
10.5.2 Impact on Team Behaviour	265
10.5.3 Responsibility for the Project Environment.....	266
 Appendix A – Conceptual Framework Holistic View	 268
Appendix B – Conceptual Framework Motivation.....	270
Appendix C – Coding Structure	271
Appendix D – Data Collection Examples.....	275
Appendix E – Holistic View	278
Appendix F – Motivation.....	280
Abbreviations	282
References	284

Figures

Figure 1)	The Comprehensive Problem-solving Picture.....	21
Figure 2)	Simplified IT Project Process Model	41
Figure 3)	The IT Project Process Generic Stakeholder Model	44
Figure 4)	Projects and Units of Analysis	91
Figure 5)	Selected Research Methodology	96
Figure 6)	Case Study Database – Data Entry Screen.....	119
Figure 7)	Case Study Database – Report for Template Analysis	120
Figure 8)	Project Life Cycle of Project1	122
Figure 9)	Generic NW Project Life Cycle of Project2.....	188
Figure 10)	The IT Project Process Model.....	215
Figure 11)	Field Note Extract ‘Observation’	275
Figure 12)	Example of a Document.....	276
Figure 13)	Field Note Extract ‘Interview’	277

Tables

Table 1)	Overview of the Collected Evidence	115
Table 2)	Schedule of Project1	123
Table 3)	Project Life Cycle of Project1	146
Table 4)	Open Coding: Free.....	271
Table 5)	Open Coding: Organizational Environment	271
Table 6)	Open Coding: Project Management	272
Table 7)	Focused Coding: Motivation	272
Table 8)	Open Coding: Free for Project1	273
Table 9)	Open Coding: Free for Project2.....	273
Table 10)	Sub-Types for Project1	274
Table 11)	Sub-Types for Project2	274
Table 12)	Socioeconomic and Organizational Environment	278
Table 13)	Project Management Knowledge Areas	279
Table 14)	Opportunity Rewards in Project1	280
Table 15)	Achievement Rewards in Project1.....	280
Table 16)	Units PM – Opportunity Rewards	281
Table 17)	Units PM – Accomplishment Rewards	281

1 Examination of an Underlying Cause

1.1 Summary

This thesis aims to examine the influence of stakeholder motivation on the outcome of Information Technology (IT) projects nowadays. Chapter 1 seeks to outline the underlying cause for failure of such projects, thus leading to the testable hypothesis of this study, which is the assumption that stakeholder motivation is the key factor of this current IT phenomenon. The goal is to make available a different approach to the recent debate on project risk research (summarized in Chapter 10.2.1). The various existing studies on project risk research may allow a deeper insight into the current IT project situation, and therefore seem a valuable starting point - as explicated exhaustively in Chapter 1 and 2.

1.2 Introduction

IT projects are all projects, which involve Information Technology, including software development or new software installation. This also incorporates the so-called internal business process projects, which aim at the adaptation of internal business processes to the changing market. The objective of these projects is to increase profits by, for example, reducing processing time or offering new services. Internal business process projects are classified as IT projects simply due to the fact that they fundamentally depend on the use of Information Technology.

Studies, which focus on the outcome of IT projects (Standish Group 1994 and 1994b, Ambler 1999, Jiang and Klein 2001, Mahaney and Lederer 2006), state an average estimated failure rate of 70-90 per cent. The argument throughout this thesis aims to be essentially explanatory and is concerned with identifying a possible underlying cause explanation for this phenomenon. Thus, the generic research question of this thesis is justifiably named:

Why do IT projects profoundly fail?

Findings in project risk research (Jiang and Klein 2000 and 2001, Riggle 2001, Hartman and Ashrafi 2002, Globerson and Zwikael 2002 et al.) appear to have been analysed by means of differentiating between symptoms and an underlying cause explanation. Results drawn from project risk research tend to deliver numerous symptoms (project risks), nonetheless seem to fall short of delivering a convincing recommendation (risk strategies) to solve these symptoms. As the discussion in Chapter 1.4 outlines, it appears that numerous symptoms point toward one single underlying cause explanation, which is motivation. Therefore, motivation may offer a valid explanation for the high failure rate of IT project outcomes.

Above all, this thesis seeks to provide insight into the motivation of the involved stakeholders, which may be one determining factor in today's complex IT environment. The research methods in this thesis may come across as rather unconventional and overly innovative, whereas in actual fact they derive from an emerging contemporary research approach. Presumably, the coherent argumentation for a case study strategy based on qualitative evidence is able to reveal the appropriateness to the researched IT project phenomenon.

Chapters 1 and 2 present and discuss different perspectives on IT project risks and strive to further the central argument of this thesis. These distinct perspectives (see Chapter 1.5.1) evidently contribute to the process of formulating the key research question for this study:

**Does stakeholder motivation
have an influence on the outcome of IT projects,
and, if so, what could be done to improve the situation?**

1.3 The IT Project Situation Today

1.3.1 The Tragedy

It appears to be rather obvious that an operating company publicises primarily positive and marketing effective messages with the intention to avoid any negative implications for their professional reputation and, consequently, their share price. The consequences of IT project failure can be far-reaching and, moreover, cannot always be concealed. Available Figures show a tragically high failure rate of IT projects. The Standish Group (1994 and 1994b, p. 1) reports that 52.7 per cent of information system projects dramatically overrun their schedules and budgets, 31.1 per cent are cancelled, and only 16.2 per cent are completed on time and budget. Other sources (Ovum 1995, p. 1) believe that only 5 per cent of systems are delivered on time and on budget. Up to 75 per cent of IT projects never get utilized as originally planned for. Ambler (1999, p. 1) reports an 85 per cent failure rate in the development of large-scale software projects. Jiang and Klein (2001, p. 1) assume that half of all the United States' software projects go way over budget. Mahaney and Lederer (2006, p. 42) argue that the failure rate "remains alarmingly high" and that "this problem has endured for four decades and does not seem to be abating".

From a business point of view, it can be hypothesised that IT project failure will have a dramatic effect on the operating company. This substantial impact shows clearly the strategic importance and moreover the pressure for IT project success: "Defining and assessing project success is therefore a strategic management concept, which should help align project efforts with the short- and long-term goals of the organization" (Shenhar et al. 2001, p. 699). Shenhar et al. (2001, p. 703) argue that today the establishment of a relationship between defined project success and strategic measures to enhance competitive advantage is still in its early stages, and the high number of operationally managed projects clearly demonstrates this observation. Thereby Shenhar et al. (2001, p. 703) define operationally managed projects as projects with a focus "on getting the job done and meeting time and budget goals, while strategically managed projects are focused on achieving business results and winning in the market place".

The three most important impact factors for IT project failure are: organizational, financial and, allegedly the worst effect, human.

Organizational impact means that an opportunity for improvement has been delayed or has been entirely missed, and, as a result, valuable internal human resources may have been wasted. These human resources could have been deployed in a more productive way for the operating company. Additionally, this misuse could have frustrating effects on the involved human resources and in consequence a negative impact on future projects (Hormozi et al. 2000).

While the organizational impact seems often underrated, the financial impact cannot be played down to the same extent. Ovum (1995, p. 2), for example, describes in his report on the London stock exchange the failed attempt to develop the paperless share dealing system “Taurus at a cost of 75 million Pounds”.

The worst impact can be seen as the human one. The loss of life as a result of the Challenger space shuttle accident may seem an extreme example, yet manages to highlight clearly the potential for disaster. A more common consequence in today’s business environment would be obviously ‘dismissal’. Kendall (2003, p. 47) reports that, in 2000, as a result of not delivering the expected project outcome, 40 chief executive officers (CEOs) of the Fortune 200 firms were laid off. Even if the validity of this figure could be questioned, the tendency appears obvious; the CEOs were held responsible for the failure of not delivering the required project outcome. It seems common sense that in the case of a successful project outcome, which would have delivered a change in form of increasing profits, such drastic measures would have been improbable.

1.3.2 An Inspection of Symptoms and an Underlying Cause

Today's rapidly changing markets increase the pressure on companies to adopt their business processes to the customer's requirements; simultaneously the phenomenon of a high IT project failure rate becomes apparent. This consequently leads back to the crucial two research questions as identified in Chapter 1: 'Why do IT projects not deliver?' and 'What could be done to improve this situation?' The order of the two questions is extremely important: Only subsequent to identifying an underlying cause as to why an IT project did not succeed, it is possible to find a realistic solution and work toward improvement.

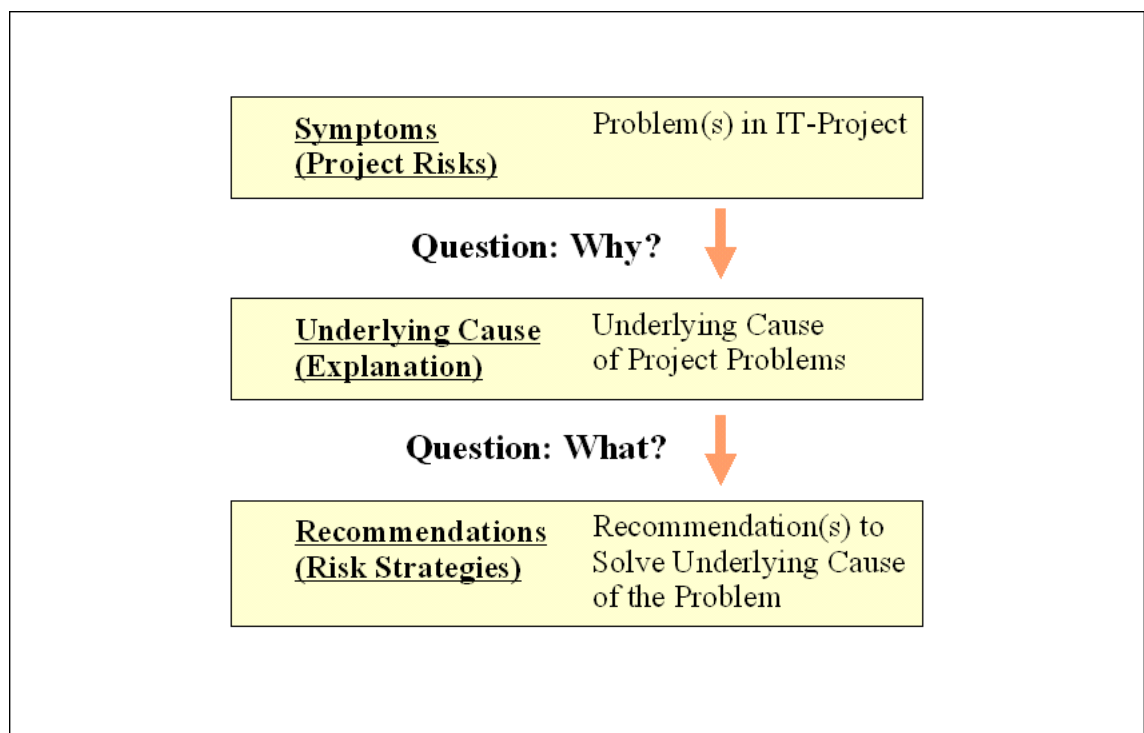


Figure 1) The Comprehensive Problem-solving Picture

1.3.3 Critical Success Factors

After elucidating the importance of a Comprehensive Problem-solving Picture, consisting of symptoms, an underlying cause explanation and recommendations, several studies with the focus on critical success factors (CSF) as well as project risk, are being analysed in the following paragraphs. This analysis intends to illuminate the connection between the Comprehensive Problem-solving Picture and the provided studies on CSF. According to a study by Jiang and Klein (2000, p.7) investigating

“software development risks to project effectiveness”, the “project effective measures revealed that two common risks have a more significant impact on effectiveness: lack of general expertise on the team and lack of clear role definitions for team members”.

“General expertise” is here defined as interpersonal and team skill, for example, the ability to work effectively as a team with the top management, and as well as tool to understand human implications. To avoid these risks, Jiang and Klein (2000, p. 7) recommend firstly appropriate training, secondly a stronger prominence of the project manager building team skills throughout the project life cycle and thirdly improvement of user participation and commitment. The recommendation of, for example, training undoubtedly may help establishing teamwork, yet questions, such as what kind of training would be required and which target group should be addressed, remain unanswered. It becomes evident that such recommendations are merely based on symptoms. It would proof difficult to unequivocally answer the question why there had been a lack of ability to work as a team, as this would entail an explanation of the underlying cause and also a clear specification of training requirements (if needed). These findings support the writer’s hypothesis that only by identifying the underlying cause, effective countermeasures can be planned and executed; otherwise the risk of curing merely the symptoms is ostensibly not eliminated.

The focus of the first study by Jiang and Klein (2000) was on project effectiveness. Other dimensions of project success, such as system technical performance, were not included. In a second study by the same authors this technical aspect was eventually included. Based on another survey of Project Management Institute (PMI®) members, Jiang and Klein (2001, p. 2) identify “the major risks to software success and the

commonly applied approaches to mitigate the risks”. These researchers report that the three most common risks associated with IT projects are: project size, application complexity, and technology acquisition. In this study, project size is defined by the number of project stakeholders, and the application complexity by the number of other affected systems as well as the sophistication required for the project implementation. Technology acquisition is defined as the “amount of technology that must be brought into the organization and the number of different vendors involved” (p. 3).

In contrast to their first research paper (Jiang and Klein 2000), in which the authors conclude their study solely with recommendations on how to solve project risks, in this second study they also survey the most commonly applied approaches to mitigate these risks. These approaches are to “obtain users’/ managers’ participation and commitments and to institutionalize system use” (Jiang and Klein 2001, p. 8). Based on this survey it appears accepted that these approaches are effective in mitigating risks, otherwise the responding members would presumably not deploy these countermeasures. Furthermore, Jiang and Klein (2001) drew the conclusion that general risks involve technical issues, budgetary limitations, lack of role clarity, lack of experience and lack of development expertise, which can be “controlled via [the] early job of selling, participation, and commitment mixed with training and ongoing support” (p. 7). Combining these identified most common risks with the identified most common approaches to mitigate and the recommendation given, the result suggests that an important link may be missing. The link would be the explanation as to why, for instance, the approach “to obtain users’/ managers’ participation and commitment” is deployed to solve problems such as project size. The explanation of the ‘why’ is the underlying cause of this problem (symptom), which evidently is missing.

The study of Riggle (2001) is based on the ‘Chaos Report’ by the Standish Group in 1994, a survey covering 8.380 software applications. In this report’ “incomplete requirements and lack of user involvement were ranked as the top reasons why projects are impaired and ultimately cancelled” (Riggle 2001, p. 5). Riggle argues that two modes contribute to the failure to meet the requirements; these modes are: user-centred and developer-centred. Both modes contain communication problems, where “(...) at

the heart (...) is the fact that business users understand their business at the business process level while data warehouse developers mostly understand it in terms of data structures” (Riggle 2001, p. 2).

This argumentation and the following recommendations are based on incomplete requirements. In fact, this occurrence appears similar to the situation when two people apparently speak two different languages. These two people can only communicate effectively if they both are willing to do so, for instance, by either learning the other’s language or by deploying sign language. This is comparable to project management where communication processes can ultimately only be successful if there is an interest in a relationship, which as a matter of fact is possible in successful projects. Therefore, the factor ‘communication problem’ is presumably not the underlying cause. The question why communication was not possible is the question for the explanation of the underlying cause, which apparently has not been answered.

The first two project risk research studies (Jiang and Klein 2000 and 2001) are based on surveys among PMI® members. Due to PMI®’s focus on project management, the members are consequently project managers or individuals interested in project management.

Hartman and Ashrafi’s study (2002), which surveyed 36 software project owners/sponsors, contractors/suppliers and consultants, shows clearly how the findings change if a different group is surveyed, for instance, some stakeholders - unlike the project owner/ sponsor - are not necessarily project management experts. Hartman and Ashrafi (2002, p. 2) present the empirical results of seeking “answers to questions related to success, performance metrics, and project business drivers” in the IT industry and conclude that “(...) some projects lacked defined goals (...) to measure this success. If the owner, contractor, and consultant on a project all have different ideas of what success is and how success will be measured, it is unlikely that everyone will be satisfied when the project is completed” (p. 10). To circumvent this problem, Hartman and Ashrafi (2002) recommend linking projects to the respective corporate business strategy, aligning major stakeholders on key issues, simplifying project controls and

metrics, and ensuring that an effective communication and expectation management is maintained throughout the project life cycle. The identified main issue appears to be the lack of defined goals, and even if there would have been an agreement on goals, these goals could not realistically have been measured. As a consequence, it was concluded that the project would not satisfy the stakeholders or at least the majority of stakeholders.

It is apparent that Hartman and Ashrafi's recommendations relate to questions on how it should be possible to reach an agreement on common goals and how to measure these goals. A serious weakness with this study, however, is that these recommendations do not answer critical question such as why it is important to agree on a common project goal, why it is advisable to link the project with corporate business strategies, why aligning major stakeholders on key issues would be a vital strategy, or, finally, why effective communication and expectation management may be crucial practices. These findings further support the idea that the link between the problem and the recommendation is unmistakably missing. Hence, it could conceivably be hypothesised that the link indeed is the underlying cause.

Globerson and Zwikael's study (2002), which is anchored in a survey of different project management workshop participants, examines the project managers' impact on the project planning phase: "The results of the study reveal risk management and communications as the processes with the lowest planning quality" (Globerson and Zwikael 2002, p. 2). Based on their findings Globerson and Zwikael recommend to develop better tools and techniques to support the project managers' planning efforts in communication management. Similar to Riggle (2001), Globerson's and Zwikael's (2002) recommendations are based on their personal experience. In an attempt to explain the poor quality of risk management, they argue that line management seems of little help for the project manager due to the line management's lack of knowledge. As a result, project risk management training is recommended to line managers. Yet, it is indeed a philosophical question whether the line manager in their role as user/ customer or provider of resources can in actual fact be made responsible for this low quality of project risk management.

Another incident may be that if the line manager lacks interest in the IT project, they would not support the project manager's efforts to improve the situation. In this case it is likely that the line manager would defend their malfunction by claiming a lack of knowledge. Again, this second case shows clearly that without having identified the underlying cause, the recommendation is merely a guess – even when based on experience. Consequently, if the underlying cause is not taken into account, all efforts might be wasted, for example, should the recommended training be accomplished.

Another approach to research risk is to focus on one risk at a time. Jiang et al. (2002b) focuses in their study “reducing user-related risks during and prior to system development” (p. 507) on user-related risk; other risk drivers are not considered. Jiang et al. (2002b) conclude that “the practical implications of this study are clear. Pre-project partnering activities are an effective technique for reducing user-related risks” (p. 514). This is followed by the recommendation that

“ (...) organizations should spend more effort up-front to put up foundation for improving communication, resolving conflicts, and making process improvements among stakeholders (...) not to be overlooked, is the importance of recruiting a competent IT project manager as the success of the project was demonstrated by this study to be of prime importance (...)” (p. 514).

In comparison to the studies mentioned above, in which ‘risk’ had been researched from an IT project's perspective, this study diverges from this focus. Additionally, the pre-project phase was included in the research. It can be concluded that this study provides a valuable contribution to contemporary research by offering a new perspective on risk management. Nevertheless, it apparently also fails to explain the underlying cause.

The list of studies is exemplary and can be continued focussing on a wide variety of aspects such as the role of vision (Christenson and Walker 2004), different subcultures and cultural levels existing between organizational levels (Kendra and Taplin 2004), the importance of project communication in relation to company size (Hyväri 2006) or awareness of software process improvement (Dalcher 2006 referring to Niazi et al. 2006).

Harris (2009) compares key project risk areas for IT projects with three recent studies and concludes that these are very similar (Harris 1999, Baccarini et al. 2004, Tesch et al. 2007). Furthermore, Harris structures these risks into risk categories and provides risk strategies. These project risk areas and the resulting categories are the identified symptoms, and the risk strategies are equivalent to the general recommendations in the Comprehensive Problem-solving Picture (Figure 1).

These findings produce certainly valuable insight into risk processes, however they fail to provide a Comprehensive Problem-solving Picture. These aforementioned studies are being discussed further in the following Chapters of this thesis: The abovementioned studies which focus on the integration of the users are discussed in detail in Chapter 5, and the elucidation on how an underlying cause explanation would make a difference to IT project outcomes follows in Chapter 9.

1.4 The Classification of Symptoms

The findings clearly reflect that all the identified project risks of the previously discussed project risk research studies are symptoms. Furthermore, it is evident, that these studies do not present an underlying cause explanation; however, this missing aspect is the link, which is necessary for understanding the Comprehensive Problem-solving Picture. The complete process of problem solving consists of three steps: Firstly, identifying the symptoms, secondly, understanding the underlying cause and thirdly, deploying tools and techniques to dissolve the underlying cause of the problem. It is therefore likely that only by understanding the complete picture, the underlying cause of the problem could be dissolved and the symptoms may disappear completely. This finding corroborates the ideas of various studies including Globerson and Zwikael (2002, p. 5), who suggested that the underlying cause explanation may be missing, and admits that “the explanation has to be sought elsewhere”.

In the search of the missing explanation of an underlying cause, the current results of project risk research may provide a starting point. This approach utilizes both the project risk research results with their numerous symptoms and the project risk research recommendations on how to solve or prevent these symptoms. The aim of this approach is to get an indication as to how to find the missing explanation. The idea is to trace back these project risk research results to identify a possible root-cause explanation, which may then connect the identified symptoms and effective recommendations. To be able to trace back the recommendations, they have to be structured first. Therefore, the best method to adopt for this investigation was to group up all recommendations on the basis of their respective main focus. Following this, the various groups are being examined for a common indicator, which ultimately may point to a possible underlying cause.

1.4.1 Project Management Methodology

The first group of recommendations aims at the basic deployment of tools and techniques that are typically applied in project management methodology.

Jiang and Klein (2000) as well as Globerson and Zwikael (2002) recommend project management related training in their studies. At a first glance, this recommendation is far too general to trace to an underlying cause. In addition, Globerson and Zwikael (2002, p. 6) recommend innovative tools and techniques in project communication and quality management in order to “develop better tools and techniques to support the project manager’s efforts”. Of course, these tools and techniques may be novel for the PMBoK® (2008) methodology, but this does not necessarily imply that they are also new for other project management methodologies or management disciplines (Schelle 2003). For example, processes in quality management, which are discussed within the next paragraph, show clearly that other tools and techniques are available.

Other studies based on experience, including Kinsella (2002), recommend improving project cost management by implementing alternative (existing) forms of accounting methodologies. This result points again toward the recommendation to deploy a different tool and technique which is not included, for instance, in the PMBoK® (2008) methodology yet. Nevertheless, this tool and technique is also available in other project management methodologies or management disciplines.

Therefore, it can be concluded that the available tools and techniques are sufficient to manage a project. If the available tools are sufficient, this leads inevitably to the question whether these tools and techniques are actually applied effectively. This calls for a close investigation if quality issues may be relevant to elucidate this situation.

1.4.2 Quality Management

Influenced by Cooper (1993, 1994), Icmeli-Tukel's and Rom's (2001, p. 402), definition of quality is:

“Project quality means meeting customer's needs fully for the end product, reducing the reworking of non-conforming tasks, keeping customers informed of the progress of the project, and changing the course of work to meet the customer's emerging requirements”.

In short, the recommendations of this group put the focus on project management processes, which have been established by means of low quality application¹.

Jiang and Klein (2000) recommend putting stronger emphasis of the project manager to build team skills throughout the project life cycle. Surprisingly, although team-building activities are here already recorded as part of project management and executed by the project manager, the study recommends to put more emphasis on it. Hartman and Ashrafi's (2002) recommendations are similar, advising to align major stakeholders on key issues, to simplify project controls and metrics, and to ensure that effective communication and expectation management is maintained throughout the project life.

A serious weakness with all these studies seems to be that recommendations have a special focus on tasks, which already exist, for instance, key issues that have already been aligned; however, the recommendation is to align them to major stakeholders. Elsewhere, Riggle (2001, p. 2) proposes a radical change in “the nature of communication between the parties”. A similar view, which can also be grouped under the aspect of quality, is supported by Globerson and Zwikael (2002) who urge to improve communication through the development of better tools. This result may be explained by the fact that Globerson and Zwikael (2002) refer to communication in general and not to the tools of communication, as suggested by the PMBoK® (2008). Yet, both recommendations aim at improving the quality of communication processes.

¹Icmeli-Tukel and Rom (2001) measure low quality by the amount of time and money spent on reworking.

Christenson and Walker (2004) put emphasis on the common vision (objective) for all project stakeholders and state that their “intended contribution is to highlight best practice in vision development and to a lesser extent, its deployment” (p. 51). Their findings identify four characteristics of a vision that claims to improve the quality of vision development processes.

To conclude, the recommendations of the abovementioned group put a strong focus on project management tools and techniques to improve work procedures among the project stakeholders, for example, enhancing team-building skills or aligning major stakeholders in order to set up an effective communication and expectation management.

Discussing quality would not be complete without including general approaches in quality management, for the reason that modern quality management approaches are seen as complements to project management (Icmeli-Tukel and Rom 1997, 1998, 2001², Orwig and Brennan 2000³, Kloppenborg and Petrick 2002). Total Quality Management (TQM), for example, is a non-proprietary, wide-ranging approach on all company levels to provide the vision and goal of “best in class” (Stamatis 1994). By employing TQM, several earlier quality approaches have been integrated into one (Kloppenborg and Petrick 2002). This approach integrates “the draft document BS ISO 10006 Quality Management and Guidelines to Quality in Project management” (Bryde 1997, p. 233) suggesting five fundamental quality principles: (1) Maximising the satisfaction of customer and other stakeholder needs is paramount, (2) all work in a project is carried out as a set of planned and interlinked processes, (3) quality has to be built into both product and process, (4) management is responsible for creating an environment for quality and (5) management is responsible for continuous improvement.

Similar to this ISO norm, the quality approach Six Sigma, which is based on statistical tools and techniques, has been developed in order to drive out variability and reduce

²Icmeli-Tukel and Rom (1997, 1998, 2001) argue that this quality thinking is the most important aspect for project managers to manage a project successfully.

³Especially for project-based organizations, Orwig and Brennan (2000) see formal project management as quality management.

waste in processes (Coronado and Antony 2002). In this study, Coronado and Antony (2002) describe the “critical success factors for the successful implementation of Six Sigma projects in organisations” (p. 92). These critical success factors are defined as the essential ingredients and, according to Coronado and Antony (2002), if one was missing “it would be then the difference between a successful implementation and a complete waste of effort, time and money” (p. 99).

Listed up, the critical success factors are: (1) Management involvement and commitment, (2) cultural change (to support change), (3) communication, (4) organization infrastructure, (5) training and (6) linking Six Sigma to business strategy, to customers, to human resources and to suppliers. Furthermore, the tools and techniques within Six Sigma have to be understood and the project leaders in Six Sigma must have project management skills.

To sum up, both approaches show clearly the complementing relationship between quality management and project management. Except for the external principles, all recommendations can also be found in project management theories. This result illustrates that the quality aspect provides a valuable guideline on how to execute project management processes. Comparing project risk research and quality management, it becomes apparent that both focus their recommendations on project stakeholders, for example, that customer and stakeholder satisfaction is paramount as well as obtaining management involvement and commitment, setting up effective communication and considering human resources.

To conclude, the recommendations of project risk research, grouped up into quality management and the general approaches in quality management, put a focus on improving collaboration among project stakeholders. Furthermore, the general approaches in quality management add an essential external factor: the project environment, which is thus being discussed in the following Sub-chapter 1.4.3.

1.4.3 Project Environment

The third group of recommendations subsumes external influences on the project; in research literature the project environment is differentiated according to socioeconomic and organizational influences.

Socioeconomic influences can be seen as conditions and trends, which appear outside of the project and its operating company. These influences are standard and legal regulations, cultural influences and social-economic-environmental sustainability, which could be decisive for project success. For instance, if the environmental protection law of a country was altered, this could have ultimately a major impact on a project. The evidence indicates that the project manager and the project team need to be aware of these external influences. Datta and Mukherjee (2001) comment in their study on

“developing a risk management matrix for effective project planning – an empirical study” [that] “to make the project successful, the organization must analyse the social, political, technological, legal and economic environments and their implications on the project” (p. 3).

This indicates that Datta and Mukherjee (2001) focus on the socioeconomic environment rather than organizational influences, and, as a consequence, this particular study fails to provide a holistic view. Nevertheless, the developed matrix could be utilised by a project manager to quantify socioeconomic risks; hence, for project risk management this assessment is beyond doubt quite helpful. Yet, due to the lack of control over the socioeconomic influences, which have an informational character, a further evaluation in the context of this study would be for this reason unnecessary.

The second aspect comprises the organizational environment or organizational culture. This includes all policies concerning the project stakeholders and the project execution:

- All regulations which will influence the project stakeholders such as compensation and career track for project managers,
- honesty and ethics based on non-written policies and

- business processes such as software implementation policies as well as the activities which influence these policies, for example, pre-project partnering⁴.

Jiang et al. (2001) argue that pre-project partnering and software implementation policy for IT projects do not directly affect the project outcome, yet, nevertheless, they have in no doubt an indirect effect. This indirect effect is critical in so far that it limits or supports the project manager's freedom to execute the project and therefore decreases or increases the probability of success (Jiang et al. 1998). Therefore, to avoid risk Jiang et al. (2002b) recommend using pre-project partnering. Hartman and Ashrafi's (2002) suggestion to connect the project with an overall corporate business strategy seemingly builds upon this concept of pre-project partnering. Hence, it could conceivably be hypothesised that the pre-partnering relationship between general management and project management may provide for project managers a good base for understanding how to work towards a corporate business strategy.

These findings suggest that projects can be defined and started in line with the corporate business strategy. Otherwise, the possibility of lacking knowledge and clarity, and, as a result, not being supportive toward a corporate business strategy, has to be taken into account. In the worst-case scenario, the project has to adapt the project objective during the project life cycle to the corporate business strategy. Depending on the extent of project objective modifications, this could even result in having to redefine the project completely.

This view is supported by Kendra and Taplin (2004), who identify four dimensions of project success: "(...) the project manager skills and competencies, organization structure, measurement systems, and management practices that represent an organization's culture" (p. 43). Except for the first dimension, the remaining three dimensions can be subsumed under the category project environment, which underlines

⁴Pre-project partnering describes the level to which management/ users and project team members work together before the project officially commences, e.g. the continuing relationship between the project office (Cowan et al. 1992) as well as the project team (Larson 1997) and the management. The role of pre-project partnering for project management is similar to TQM (Bubshait 2001), which is based on relatedness.

the very importance of the project environment for project success. The most striking result to emerge from their research is the idea that “IT organizations that adopt the confirmed project success model must develop a project management culture based on shared cultural values of the organization’s members that support adoption of project management” (p. 30).

These research results elucidate the crucial influence of the organizational environment on IT projects. To sum up, the recommendations in this group focus on three aspects: Firstly, on collaboration among the project stakeholders through, for example, pre-project partnering, secondly, on linking the project objectives to the corporate strategy aims and finally, on developing a project management culture based on shared cultural values of the organization’s members. The latter is discussed further within the context of project management in Chapter 2 and also within the context of psychology in Chapter 3.

1.4.4 General Recommendations

The last research group covers the field of general recommendations. Jiang and Klein (2000) recommend obtaining participation and commitment from users and managers. In fact, Jiang and Klein (2001) support their own argument by pointing out that this is the most commonly applied approach to mitigate project risk. In their empirical study about “a new framework for determining critical success/ failure factors in projects”, Belassi and Tukel (1996, p. 141) interestingly came to the same conclusion emphasizing that, among to two other vital factors, commitment is the most critical one. These two other crucial factors are the project manager’s performance and the team members’ technical background. Whereas the link between the project manager’s performance and the project manager’s participation and commitment is conceivable, a logical link between the team members’ technical background and the team members’ participation and commitment requires seemingly further explanation. This result suggests that maybe technical risks are closely linked with stakeholder commitment. Jiang et al. (2000, p. 2) state “that effective project teams reduce technical risks”. In other words, this implies that committed project teams reduce technical risks.

Following studies, which are based on literature research, interviews and experience, extend the participation and commitment recommendation on all stakeholders. Pinto and Kharbanda (1996) name in their article on “How to fail in project management (without really trying)” as number one reason for failure: “ignoring the project environment (including stakeholders)” (p. 3). It is interesting to note that in this study the project environment extends to the external stakeholders. Another study produced results which corroborate the findings of many of the previously-discussed work in this field; Madden (1996) states in the first four rules of the ‘one hundred rules for NASA project managers’:

“A project manager should visit everyone who is building anything for his project at least once, should know all the managers on his project (both government and contractor), and know the integration team members (...) must know what motivates (...) find the right people to do the work (...) deal fairly (...)” (p. 1).

In another major study, Robert (1997, p. 75) emphasises, among other aspects, the importance of “getting all parties involved”. However, in his conclusion he visibly focuses on the commitment of the steering committee. The steering committee, consisting of the management of the operating company, should ensure that management processes in the project are executed effectively and participation and commitment from “all the parties at all levels” (p. 77) is achieved. However, even though the above mentioned project risk research studies (Nah et al. 2001, Legris and Collette 2006, Sutterfield et al. 2006) focus on other distinct research questions, the importance of ‘stakeholder issues’ cannot be ignored, and therefore has to be examined closely. It was decided that the best method to adopt for this investigation is the IT Project Process Generic Stakeholder Model, which is introduced in the next Chapter.

To sum up the findings of this Chapter, research indicates that participation and commitment of all stakeholders is recommended to achieve project success. However, the exact meaning of participation and commitment is still indistinct, and this is undoubtedly an important issue for further research.

1.5 An Underlying Cause Explanation

1.5.1 The Current Project Risk Research Debate

The project's key objective is to outline the possibility for change, for instance, through efficiency or cost savings. Reis and Pena (2001) describe this situation:

“The success of any change depends on the willingness of employees to accept it with enthusiasm and implement it with care. Yet, business changes at times are undertaken without understanding how the human element influences the success or failure of a project. (...). The difficult and often neglected part of such initiatives is leading and managing behavioural change with those persons who interface with the new technology or the new initiatives.” (p. 674)

In other words, participation and commitment in a project can be described as the human side to support change – the culture towards change (Palmer 2002). Thus, it can be concluded that in order to achieve participation and commitment of all stakeholders involved, it presumably is necessary to integrate the human side into project execution. The integration of the human side is achieved by the integration of a human-centred philosophy (Dinsmore 1990, Cleland et al. 1995, Kuruppuarachchi 2001). This study intends to demonstrate that the integration of a human-centred philosophy can be achieved by looking through the lens of motivation.

The previous discussion of the group quality management (Chapter 1.4.2) and project environment (Chapter 1.4.3), also indicate a strong focus on the stakeholders. All the listed recommendations evidently aim at the stakeholders of a project with the intention of achieving the expected project outcome. Added to this, the compatible quality approaches support this direction arguing that this understanding of human behaviour is a critical success factor (Buch and Rivers 2001).

The discussion of the project risk research studies as introduced in Chapter 1.4 seems to give sufficient evidence to explore motivation as a key theme in this study – as an alternative lens (Dalcher 2008). The aim of this study is to examine whether by looking through this alternative lens of motivation coherent evidence as to why IT projects tend to fail can be gathered, thus leading to a better understanding of the subject matter. It

can also be considered that, through a deeper insight, the lens of motivation may be able to help speculating on possible solutions that may eventually improve the current IT project situation.

1.5.2 The Project Process Generic Stakeholder Model

A human-centred philosophy, which integrates stakeholders, can evidently be achieved by integrating the various stakeholder groups. For this reason, the distinct stakeholder groups as presented in existing project risk research studies are discussed in Chapter 2.2, which deals with the importance of stakeholders on the outcome of an IT project. For this reason, this study relates to the Project Process Generic Stakeholder Model, rather than limiting itself to one particular stakeholder group. The advantage of introducing the Project Process Generic Stakeholder Model appears to be that - independent of the researched project - the stakeholders can be structured in accordance with their primary role, and thereby comparability between the researched projects can be achieved.

Depending on their involvement, the stakeholders were grouped up in participation, direct and indirect stakeholders. The participation stakeholders tended to contribute with their work to the project objective, whereas the direct stakeholders preferred to focus on the utilisation of the project outcome. The indirect stakeholders did not have a stake in the project, however, seemed to wish to be involved, for example the members of the works council.

The research strategy discussion in Chapter 4 deals with this argument more detailed endeavouring to examine how this aspect may influence the research strategy.

1.5.3 The Lens of Motivation

The lens of motivation attempts to provide further insight into the behavioural patterns of specific stakeholders. For the purpose of this study, the behaviour showing a form of resistance to the project objective is important to examine. This behaviour is often interpreted as irrational behaviour (Analoui 1995). It can be assumed that through a

better understanding of such behavioural patterns, the irrational behaviour can be seen as rational behaviour. This rational behaviour may be based on rational reasoning, which may give an indication, which may explain the reasons for the stakeholders' behaviour in certain situations.

Chapter 3 discusses the factor 'motivation' and the reason for selecting a combination of the rewards from task activity and task purpose for the lens of motivation. The selected Model includes four senses, which might be able to explain an underlying cause for individual behaviour. These senses are: meaningfulness, choice, competence and progress (Thomas and Tymon 1997, Thomas and Velthouse 1990). Each sense contains five building blocks. A Template Analysis may be able to elucidate how the individual stakeholder perceived these building blocks. This process might provide further insight into the four senses. It can be expected that an increased perception of these four senses may provide an explanation of the underlying cause. As a consequence, recommendations could then be identified, which suggest possibilities that may change the stakeholders' situation. It can be deduced that as a result, the stakeholders may be able to perceive the building block(s) differently and in effect their behaviour would change accordingly.

1.5.4 Contributions

This study utilizes the lens of motivation to analyze the outcome of IT projects with the intention to provide a different view on the current situation.

First Contribution

The first contribution seeks to answer the question whether the lens of motivation is able to explain the reason for the stakeholders' particular behaviour. This understanding seems to be relevant, because the behaviour of the involved stakeholders is likely expected to shape the IT project outcome (Figure 2).

Second Contribution

Subsequently, after having observed and analyzed the stakeholders' behaviour, the second contribution explores possible actions and procedures to improve IT project outcomes.

Third Contribution

The third contribution of this study is the IT Project Process Model:

- First of all, the Model is thought to be applicable for all project stakeholders.
- Second, the Model intends to provide a holistic view on the project, which can be seen as a requirement in order to identify to what extent motivation shapes a work setting.
- Third, the Model demonstrates the lens of motivation for an IT project, speculating on the reasons for the stakeholders' behaviour.
- Next, the Model indicates how the symptoms can shape the behaviour of the involved stakeholders, and thus, the influence on the IT project outcome itself.
- Then, the Model aims to give recommendations on possible actions and procedures to improve IT project outcomes.
- Last of all, the Model reflects on the hypothesis that the motivation of the individual stakeholder should be examined prior to the team's.
- Above all, the Model differentiates between motivation and leadership. The findings for the second question support the assumption that leadership can be seen as the task to motivate.

1.5.5 Structure of this Study

The Figure below is the simplified Model of this study and aims to show how the discussed project risk research outcomes provide the structure for this study.

This simplified Model (Figure 2) depicts the process whereby the two aspects project environment and project management methodology, including quality management,

shape motivation and consequently the project outcome. The deployed Model confines the data solely to those aspects with which this study is concerned. In other words, this simplified IT Project Process Model explores the possibility to view and discuss IT projects through the lens of motivation.

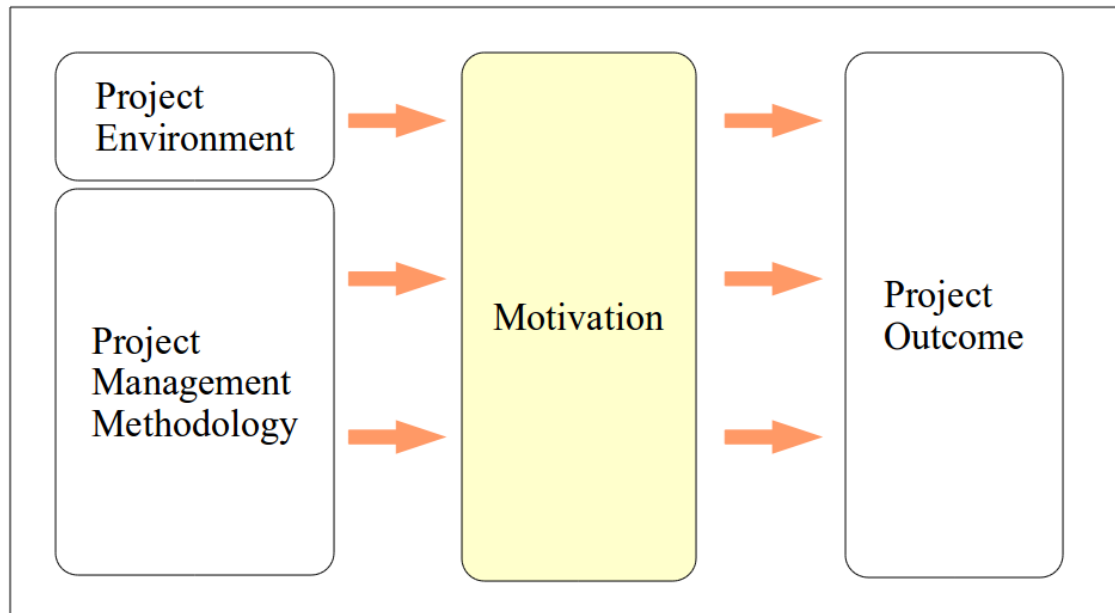


Figure 2) Simplified IT Project Process Model

In Chapters 2 and 3 the literature review provides an overview of the available knowledge base. Subsequently, based on this discussion, Chapter 4 first elaborates the simplified IT Project Process Model, then defines the artificial boundary and finally discusses research methodology and design.

The collected evidence in Chapters 5 and 7 provides the basis for an investigation of the holistic view on the selected IT projects. Chapters 6 and 8 analyse the collected evidence by evaluating the motivation of the involved stakeholders and, furthermore, develop the discussion on project risk research studies.

Above all, the Template Analysis in these Chapters seeks to elucidate the stakeholders' observed behaviour. The result of this analysis then allows a reflection on potential underlying causes for the stakeholders' discontent with shared project (group) objectives.

The discussion in Chapter 9 seeks to provide recommendations for each stakeholder on how to decipher and potentially eliminate the underlying cause. It can be assumed that through this alleged process of elimination the discontent with shared project objectives could be transformed and, therefore, resistance replaced with support.

1.6 Conclusion

The findings of project risk research suggest numerous symptoms; yet fail to deliver the underlying cause explanation, which however seems essential for initiating a successful problem-solving process. After categorising and analysing the findings of the individual project risk research studies, the integration of the lens of motivation can be identified as a promising theme for an underlying cause explanation. The critical hypothesis of this study is that motivation may offer a plausible explanation of the complex phenomenon that occurs between symptoms and IT project outcomes.

The findings support the view that the observed resistance among stakeholders could be replaced with support mechanisms, and therefore successful IT project outcomes could be achieved. For the purpose of investigation, this study provides the IT Project Process Model.

2 A Holistic View on the IT Projects

2.1 Summary

This Chapter discusses relevant academic literature in the field of project management knowledge.

The first part of this Chapter defines the IT Project Process Generic Stakeholder Model in order to categorize the various stakeholder groups according to their role in the project. The advantage of introducing an IT Project Process Generic Stakeholder Model is that independent of the researched project, the stakeholders can be classified in accordance with the generic model, and thereby comparability between the researched projects can be achieved. Furthermore, a discussion of project risk research studies provides insight into the reason why study does not feature an up-front focus on a specified stakeholder group.

The following sections discuss project environment, project management methodologies and project life cycle, and thus the elements required for presenting a holistic view of a project are being provided, which can be seen as essential for understanding the complete picture - as to why IT projects tend to fail.

The final part of this Chapter examines the multidimensional approach that is required to assess project success.

2.2 The Project Stakeholders

2.2.1 The IT Project Process Generic Stakeholder Model

In the context of this study stakeholders are all individuals who have a stake in the specific project. Due to the possibly large number of stakeholders and stakeholder groups involved, the IT Project Process Generic Stakeholder Model allows establishing a structure which represents the different extent of the stakeholders' involvement: contribution stakeholders, direct stakeholders and indirect stakeholders. With this approach the stakeholders of different projects can be structured accordingly and comparability to the audience of this study can be established - independent of the definition of the operating company within the individual researched project.

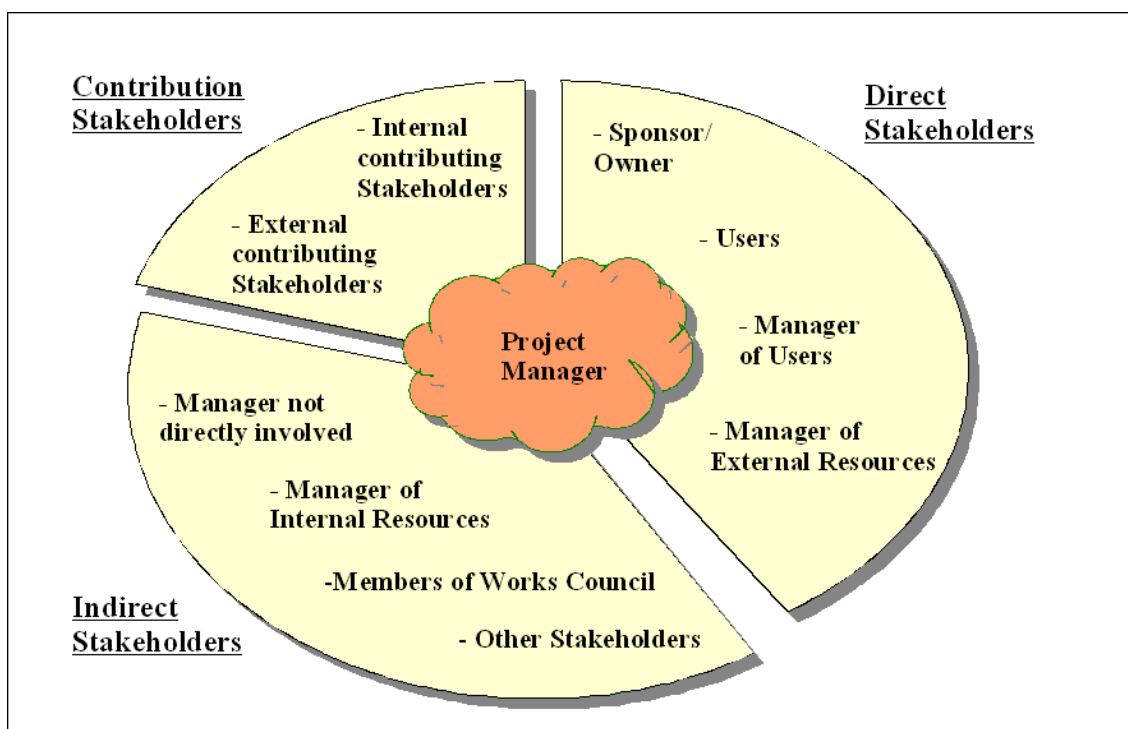


Figure 3) The IT Project Process Generic Stakeholder Model

This IT Project Process Generic Stakeholder Model can be extended by introducing additional subgroups based on the researched IT project. For example, if the project sponsor/ owner is not the project initiator, the project initiator can be listed as a separate (new) project stakeholder in the appropriate group.

Furthermore, a stakeholder can have several stakes in one project and therefore can occupy several stakeholder roles. For example, an employee of the IT department can be an internal resource as well as a user of the project outcome. In this case, the stakeholder would contribute their work and knowledge to the project as an internal resource and would also utilise the output of the project in their role as a user. For the purpose of this study, each stakeholder will be assigned to one group based on their primary involvement in the project. Depending on this primary involvement the name of the stakeholder will be substituted, owing to ethical considerations⁵.

2.2.2 Stakeholder Discussion

In the context of project risk research, Hartman and Ashrafi (2002) surveyed 36 software owners/ sponsors, contractors/ suppliers and consultants. The study concludes that some projects lack defined goals even though an agreement on the project objectives is understood as being essential for the project (Wateridge 1998, Icmeli-Tukel and Rom 2001, Shenhar et al. 2001). Riggle (2001) argues that the communication between the business users and the development team is a key problem. Based on a survey of project management workshop participants, Globerson and Zwikael (2002) analyse the project managers' impact on the planning phase, and conclude that communication and risk management can unquestionably be improved.

Jiang and Klein (2000) surveyed members of the PMI and concludes that the lack of expertise among team members is a major risk. Jiang and Klein (2001) also surveyed PMI members, however this time with a different focus. In this study the majority of PMI members assumed that common practise to mitigate risk is to obtain participation and commitment from both users and management. Interestingly, 66 per cent of the surveys conducted by Jiang et al. (2000) were completed by "important IS positions - project leaders, IS managers, or IS executives" (p. 5), and reach the conclusion, which is quite similar to the findings of Remenyi and Sherwood-Smith (1999), that a consensus between various stakeholders has to be found. The various stakeholders were defined as the management, the project team and the users.

⁵Ethical considerations are discussed in Chapter 4.6.2.

These studies, including Standish Group (1994), show clearly that, depending on the respective focus of each individual study, different stakeholders are important. Hence, it could conceivably be hypothesised that all stakeholders are important for an IT project (Thamhain 2004, Legris and Colletette 2006, Bourne and Walker 2007). In other words, a holistic view can only be provided by considering all project stakeholders; this includes all stakeholders, even those stakeholders who are not yet included in the project risk research studies discussed so far. The reason for this assumption is that new project risk research studies, with a different focus, may result in identifying new stakeholders, which are, as stated previously, crucial for a successful project outcome. This is the reason why this study initially does not focus on a selected set of stakeholders. Naturally, depending on the number of stakeholders involved in the researched IT projects, the researcher has to focus on specific stakeholders during the course of this study. However, instead of limiting the focus on a pre-defined set of stakeholders already at the beginning, and based on assumptions, which may or may not be veritable, the required stakeholders for this study will be defined during executing this research depending on their behaviour towards share project (group) objectives.

2.3 The Project Environment

As shown in Chapter 1, the project environment is separated into socioeconomic and organizational environment⁶. In contrast to the organizational environment, research related to the influence of the socioeconomic environment on IT projects is limited. Based on the results of project risk research and owing to the intention of this study to provide a holistic view on the researched IT projects, the socioeconomic environment ostensibly has to be included. This Chapter discusses in particular the way the specific researched IT projects deal with legal as well as cultural influences.

Another aspect that may help to provide a holistic view of IT projects may be the assessment of the organizational environment in which the project will be executed (Thamhain 2004). Even when considering the limited influence of the project manager on the organizational environment, the considerable influence of the organizational environment on the project is apparent; the project risk research debate in Chapter 1 has already outlined this implication. Furthermore, the discussion of the motivation theory in Chapter 3 intends to show that the organizational environment plays an important role when it comes to stakeholder motivation. The ownership of the organizational environment can be seen in association with the operating company (Jiang et al. 2001)⁷.

The organizational environment of an IT project can be defined as the organization's level of awareness and understanding towards a project, and therefore demonstrates the level of maturity; a high level of maturity can definitely support the execution of IT projects.

Kotnour (2000) argues in his research that project organizations should focus on building knowledge because increased knowledge is associated with increased project performance. Hence, the outcome of the organizational learning process, which can be described as the process of setting up and improving the organization in order to support project execution, shows the organization's level of maturity in terms of project

⁶Chapter 3.4 further defines the project environment by integrating the aspect of organizational culture.

⁷The discussion of ownership of the project environment and the presented project environment in Chapters 5 and 7 leads to a practical recommendation for further research in Chapter 10.

execution. An organization that customizes its processes based on its identifiable project management learning experiences and other sources, including how to support project execution from an organizational point of view, may indicate a high level of maturity. Moreover, an organization's drive towards standardization, which clearly enhances project effectiveness, can be seen as a key element of a mature organizational environment (Toney and Powers 1997, Milosevic 2001).

Not surprisingly, further analysis reveals that in general there is a significant positive correlation between the high failure rate of IT projects and low level of organizational maturity. Ibbs and Kwak (2000) report that today's project management maturity is the least mature in project-driven organizations, "but all the industries have substantial room to improve" (p. 11). On the whole, managers who are "engaged in the reality of organizational project management capability development, are more concerned with capability and results than they are with the concept of maturity" (Crawford 2006, p. 84). Only high-performing organizations seem to show more flexibility in adapting their organizational environment to the necessary requirements (Blomquist and Müller 2006).

Consequently, this study requires a model that can assess the maturity of the organizational environment of the operating company. The first requirement is that this model has to cover the various aspects of organizational support. Toney and Powers (1997) developed the Projectized Functional Management (PFM) Model which explores the best practice for large functional organizations to adopt project management. This Model is structured in three areas:

"First are the strategic elements consisting of approaching the concept and vision of the project group as an implementation of the corporate vision. Second is the focus upon project management professionalism – the exhibition of professional qualifications and expertise – and, third, are methodology issues such as standardized templates and procedures." (p. 7)

As is evident, area one and two are based on the measurable research results, whereas aspect three is solely a recommendation and thus not supported by clear evidence. Despite this inconsistency, these three areas have commonly served as a starting point in this study when comparing and evaluating other maturity models.

Jiang et al. (2001) present another approach to the subject matter by examining whether “pre-project partnering activities and software implementation policy directly relate to project manager performance” (p. 3). The PFM Model includes both areas, however Jiang et al. (2001) seem to be primarily focused on project deployment, because, for instance, the organizational structure is not included in their study.

The maturity model as illustrated by Ibbs and Kwak (2000) covers general organizational information (Section 1), organizational project management process maturity assessment (Section 2) and actual project performance assessment (Section 3). Hitherto, this model seems to deliver the required content, nevertheless detailed comparison with the Tony and Powers’ (1997) Model may provide further evidence. This inevitably leads to another requirement for the selection of a model for this study: the availability of a model. Ibbs and Kwak’ (2000) model must be interpreted with caution, because it is not featured visibly in the article, yet, implicit assumptions can be made underpinning that the model does not cover the expected aspects. Section 2 of their study refers to the eight project management knowledge areas of the PMBoK® (1996), and these eight areas – similar to the nine areas of version 2008 - do clearly not cover the organizational environment. Hence, it could conceivably be hypothesised that even by adding the project management processes of a project-driven organization environment, this model is too narrowly focused, as non-project-driven organizations and their organizational environment are not included. Therefore, Ibbs and Kwak’s (2000) project methodology as laid out in Section 2 of their study can be compared with Tony and Powers’ (1997) Area 3. The other two Areas of the PFM Model are not included at all or appear not detailed enough in Ibbs and Kwak’s (2000) model.

Ibbs and Kwak’s (2000) study is based on a questionnaire, which was sent to 38 different companies and government agencies in four different industries. This aspect presents another requirement for selecting an appropriate model: the source of evidence. Similar to Ibbs and Kwak (2000), whose research is also based on questionnaires, the evidence brought forward by Jiang et al. (2001) is based on 78 returned questionnaires from PMI members. Ibbs and Kwak (2000) state:

“Ideally, the project management level should be measured by visiting each participating organization and conducting an in-depth interview with each organization’s project managers to determine current project management practices.” (p. 7)

Tony and Powers’ (1997) study is based on questionnaires and discussions among various large functional organizations of different industries. Consequently, based on a wider source of evidence, the PFM seems to be suitable for this study.

To summarize, the three PFM Model areas allow adequate coverage of the organizational environment, even if the third area of methodology issues, involving standardized templates and procedures, is seemingly not covered in-depth. It is interesting to note that neither of the discussed models extends this range of aspects nor is accessible without any restrictions, available in detailed form, industry-independent and focused on large functional organizations⁸. Another advantage is that the included key success factors and core best practices of the PFM Model can be deployed for an assessment of the operating company. Therefore, the Fortune 500 Project Management Benchmarking Study by Toney and Powers (1997) is selected as guideline for this study to describe the organizational environment.

⁸Other models have been assessed as well, however a further discussion was discarded in this study as the listed prerequisites could not be fulfilled - such as for the Organizational Project Management Maturity Model.

2.4 Project Management Methodologies

The findings in this Chapter indicate that the inclusion of all stakeholders and reviewing the project environment is necessary to provide a holistic view and thus to understand the complete picture; it is self-evident that the IT project has to be described as well. Therefore, a project management methodology may help the researcher describe the specific IT project in a structured way and show which elements were and were not been delivered.

In fact, a large number of project management methodologies are available from project management oriented organizations, companies and individuals. However, the majority of these methodologies can be identified as specialised methodologies geared toward certain project-types within their particular industry. The methodologies, for example, of Industrial Business Machines (IBM) and Computer Sciences Corporation (CSC) have been assessed with a focus on IT projects; IBM's basic project management methodology is called WorldWide Project Management Methodology (WWPMM), and CSC has developed Catalyst. In both cases, the methodologies are deployed and utilized internally. For instance, Catalyst was deployed to build a project management methodology for Siemens Business Services (SBS) and WWPMM was installed by Siemens ICN for their internal project management methodology. Another example consistent with this type of deployment is PRINCE (Projects in Controlled Environments) and the further development PRINCE2, which were developed as a UK Government standard for information systems (IT) project management. It becomes obvious that the main disadvantage of these methodologies in respect to this study is that these methodologies are not freely accessible or their circulation is limited.

In stark contrast, the methodologies provided by project management organizations are freely accessible, for instance, from project management organization such as APM (Association for Project Management), IPMA (International Project Manager Association) and the PMI (Project Management Institute). Presently, the term Body of Knowledge (BoK) is commonly used in books describing project management methodologies.

The idea to create a global BoK has already been discussed (Pinto 2002), however, seems too difficult and complex to conduct. Morris and Morris (2001) observed in the first meetings for a global BoK that it would be very challenging for the participants to reach all required agreements; this can be illustrated by the observed differences among participants of first meeting when debating the scope of a global BoK structure. Due to the lack of a global BoK another project management methodology has to be selected for the purpose of this study.

Focus of the BoK's

Each BoK claims to have a generic approach, which intends to fit most project types. Nevertheless, they do not take into account that the development of an individual BoK methodology is directed by the members of the particular organization. It is evident that - depending on the industry the members have gained their experiences from as well as the sector of the majority of the supporting companies - each BoK automatically would shift their focus toward their respective background. This focus can be detected, for instance, in the conferences that have been organised for each individual BoK and the selected sectors of the industries present (Zobel and Wearne 2000). This situation confirms that a certain industry focus of each BoK can be assumed and thus is important to consider. For example, CSC is a PMI member and not surprisingly a strong link between Catalyst and the PMI method can be found. Catalyst (CSC 1999) was evidently build on and influenced by the PMI method. Also, IBM (2001) refers to the PMBoK® in so far that they deploy the same terminology. Furthermore, a high number of members of the IT and communication industry can be found in the PMI.

Circulation

Another aspect, which is important to consider when choosing a project management methodology, is circulation; this aspect is a key factor in this thesis. The PMI has more than 200.000 members worldwide (PMI 2006) and 65.000 (PMI 2003) certified project managers who are acquainted with the PMBoK® methodology. PMI reports that the number of certified project managers grows each month by 2000; however, the certified project managers are not necessarily members. These figures demonstrate that the PMI is the largest worldwide organization for project management. In comparison, the APM, which is the largest association for project management in Europe, has 13.500 members

(APM 2003). The IPMA has to be seen as a European head organization for project management, which is in cooperation with national associations; in the United Kingdom, the APM is the national partner of the IPMA. All together the IPMA (including the national associations) has approximately 20.000 members (IPMA 2003). Additionally, various project management methodologies are based on or linked to the PMBoK®. For example, CSC Catalyst is based on PMI and was deployed as starting point for SBS's methodology. IBM's WWPMM gives reference to the PMBoK® and moreover was initially deployed by Siemens ICN.

Discussion

Morris and Morris (2001) conclude after discussing both APM's (Association for Project Management) and IPMA's (International Project Manager Association) BoK that the PMBoK® guide is too narrowly focused, and none of the presented BoK versions was essentially flawless. Each BoK seems to face the same problem, which is that due to the fast changing business environment and new research outcomes they have to be updated regularly based. Consequently, there is no general, up-to-date BoK available, which serves this study.

Morris and Morris' (2001) conclusion refers to the PMBoK® (2000), and can also be applied to the PMBoK® (2008). A considerable amount of research studies criticize the PMBoK®: Kinsella (2002) recommends enhancing the PMBoK® by adding alternative forms of accounting techniques to determine cost. Actually, Ibbs and Kwak (2000) identify cost management as an important measure for maturity. As a result, Ibbs and Kwak (2000) do not see a need for the use of other accounting techniques as suggested by the PMBoK®. Schelle (2003) takes this line of reasoning one step further and argues that the PMBoK® is at best on the advancement level of the 1980s. According to his critique of the PMBoK® up-to-date tools and techniques – among others – are markedly missing.

Within the framework of this study, a further discussion as to whether the current tools and techniques endorsed by the PMI are up to date is not necessary, because only the recommended outputs of the method are required for analysis. The researcher deploys the method only as a guideline to assess whether recommended project management

documentation is available in the observed project; yet, which project management tools and techniques exactly were deployed in the IT project. This can be illustrated easily with the example of accounting techniques, where the result of delivering cost controlling is important – whether Kinsella (2002) deploys ABC or Ibbs and Kwak (2000) deploy the techniques recommended in the PMBoK[®] is not relevant for this study.

Apart from tools and techniques, several recognized studies additionally criticise⁹ the content of project management areas: (1) CSC (1999) adds in their Catalyst Model the physical environment establishment as an individual process within project management processes to demonstrate the importance of this process. (2) Ibbs and Kwak (2000) on the other hand append a “project management process called the project-driven organization environment, which supports sustaining project-driven organisations”¹⁰ (p. 5). This research, however, is not focused on a project-driven organization and therefore this recommendation is not integrated in the project management methodology deployed in this study. (3) Kuruppuarachchi et al. (2002) mention that research has not given sufficient attention to change management. This aspect is particularly important for IT projects, because IT projects cause change. In other words, the requirement to change the behaviour of, for instance, the users is not considered sufficiently. Therefore, this specific recommendation needs to be integrated in the project management methodology deployed in this study.

A further point of critique mentioned by Turner (2006, slide 18) is the “major flaw in the PMI[®] PMBoK[®]” that it “does not deal with the start-up, feasibility and design stages of the project (...) the project manager is given a charter, tugs his or her forelock, salutes and does as he or she is told”. This aspect is integrated in this research by considering a human-based methodology.

⁹In this case the critique also includes recommendations to extend PMI’s methodology.

¹⁰Ibbs and Kwak (2000) utilized the PMBoK[®] (1996) with eight knowledge areas and referred their recommendation to this version. Nevertheless, this recommendation is also not included in the PMBoK[®] and thus the same arguments can be applied.

Selected Methodology in This Study

In summary, a freely accessible BoK should allow everybody to understand the methodology selected for this study; yet, a global BoK is not available today. Instead, the PMBoK[®] (2008), due to its large circulation, has become a well-known project management methodology. Therefore, the PMI project management methodology PMBoK[®] (2008) is selected as the project management methodology for structuring the collected evidence in this study. Owing to the focus of this study on IT projects, the recommendations of CSC (1999) and Kuruppauarachchi et al. (2002) are integrated additionally.

This study utilizes an adapted version of the PMBoK[®] (2008) in order to structure the collected project management evidence appropriately, even though there is no clear academic evidence to justify the included areas as key success factors and the project management processes as core best practices. With the aim of structuring the deployed project management tools and techniques the conceptual framework of this study integrates the ten project management knowledge areas, of which the tenth area is one of the abovementioned adaptations.

2.5 The Project Life Cycle

The project life cycle is a model that endeavours to explain the intended growth of a project in an understandable and simple way, in other words to “illustrate simply the ‘progress philosophy’ ” of the project (Bonnal et al. 2002, p. 12). Hence, it could conceivably be hypothesised that - in view of progress philosophy in general - the project manager and the project team can improve the understanding and communication within the project process. A number of generic and specialised project life cycles are available for deployment depending on, for example, the purpose of the project (PMBok® 2008), management aspects (Bonnal et al. 2002) or the experience of a company such as CSC (CSC 1999). As this study intends to cover a wide range of IT projects, and for this reason it employs a generic project life cycle with four phases (Hormozi et al. 2000, Bruke 2001). These four phases distinctively are: The project initiation phase, the project planning phase, the project execution phase and the project hand-over phase. Each phase is named according to its deliverable, which should be created and can be seen as a mini-project (Bruke 2001). The project initiation as well as planning phases are also known as the project start, however, due to their respective deliverables, they clearly need to be differentiated from each other (Besner and Hobbs 2006).

2.5.1 The Project Initiation Phase

The initiation phase starts after recognising a problem and the demand for an improvement or seeing an opportunity. It can be suggested that the general project objective is innovation, which is closely examined. It can be expected that the initiation phase outputs a feasibility report to justify the project; a feasible solution should include an analysis of the technical, business, financial and socioeconomic environment containing expectedly definitions, constraints and assumptions. It can be assumed that - depending on the content of the feasibility study - it is optional to define and include the project manager, members of the project team, users as well as the required vendors of the project. Due to this option some authors see the initiation phase as a pre-project phase (CSC 1999, Datta and Mukherjee 2001), which is thus not included in the proper project life cycle. Nevertheless, the importance of the feasibility study is recognised in

both approaches. As a result, the initiation phase is integrated in the generic project life cycle, owing to the possibility of executing the project initiation phase with project stakeholders.

2.5.2 The Project Planning Phase

It is said that the project planning starts after the management's decision to continue with the project. If not defined previously during the initiation phase, both the project owner (or sponsor) and the project manager should be defined at the latest concurrently with the management's decision to resume the project (Jiang et al. 2001). It is possible that the feasibility study already contains a top level plan to demonstrate the feasibility of a project. The planning phase defines the detailed planning process of a project referring to its main elements: scope, approach, deliverables, budget and schedule. It is generally agreed that this includes the complete setup of project management processes as well as a clear, understood and accepted formulation of the detailed project objectives; explicitly: a) The definition of the requirements, b) technical specification and c) a common project success perspective by the project stakeholders. In other words, this phase covers the complete setup and definition of a project and including the main resources: the project stakeholders. The output of the planning phase is the project baseline plan including all sub-plans to execute the project. The importance of this phase cannot be overemphasized (Hormozi et al. 2000).

Riggle (2001) explains this importance arguing that the "failures are often the result of a breakdown at the requirements analysis level" (p. 40). It appears that Riggle (2001) puts the focus on a misunderstanding between the user and corporate objectives. This reflects the fact that this analysis level is referring to the project planning phase. In another study on "an empirical analysis of the relationship between project planning and project success", Dvir et al. (2003, p. 89) survey more than a hundred defence R&D projects. The findings support the writer's view that project success is positively correlated with the investment in requirements and project management training, and, on the other hand, also that project success is insensitive to the level of (project) management processes and procedures implementation.

While the overall outcome of this study highlights the importance of the project planning phase, the setup of the project management processes and procedures can be seen as insensitive to the project success. Nevertheless, project management processes and procedures are the tools and techniques for a project manager to collect the requirements, and the requirements symbolise the outcomes of these processes and procedures. Of course, the outcome is presumably important for a project, however it could not be produced without these processes and procedures, which have to be already implemented in the project planning phase. This explanation supports the importance of the project planning phase, and equally of the project management processes and procedures.

In their study on “the impact of the project manager on project management planning processes” Globerson and Zwikael (2002, p. 1) follow the same logical chain of arguments. They state that a project can only be successfully completed if the project planning phase was properly implemented by deploying the tools and techniques as utilized in project management. Poor planning on the other hand, would neither allow appropriate execution and control processes nor the achievement of the project objectives.

2.5.3 The Project Execution Phase

The execution phase performs the project baseline plan so that the product or service is created, produced, programmed, tested, delivered and implemented depending on the respective project objectives. Although the major effort may be invested in the execution phase, the keen focus on a detailed and good project start can help to avoid unnecessary problems and re-works in the project execution phase (Womack et al. 1990, Hormozi et al. 2000, Ibbs and Kwak 2000). By way of illustration, the number of change requests brought forward by the business users may demonstrate the quality of collection and understanding of the business user requirements. To satisfy the needs of the business users, these misunderstandings have to be corrected by re-working. Icmeli-Tukel and Rom (2001) use this re-work scheme for measuring the quality of a particular project. On the other hand, unnecessary re-work is seen as time and resource consuming (Burke 2001) and thus may point toward another key point as to why projects fail

(Riggle 2001). It appears that the origin of this problem lies in the issue of inadequate project planning and underlines once more the importance of the project planning phase.

2.5.4 The Project Handover Phase

Prior to handing over a product or service to operations, all necessary steps have to be executed. The handover should include the final acceptance, contractual payments to providers, post-audit reports, which provide recommendations for future projects, and a final project meeting with all stakeholders, as this may help getting support for future projects from these stakeholders. In addition, this phase may include final testing, writing manuals, training and presentation sessions related to the new product or service. This marks the end of the project phase and thus results in the handover of the project maintenance responsibility to operations. Even if a project has to be terminated, because it has allegedly failed, this phase can be seen as extremely important “because of the lasting impact on future projects as well as the organization’s image” (Hormozi et al. 2000, p. 45).

It would seem that the generic project life cycle allows structuring different projects leading to a better comparison and understanding of the project processes. Furthermore, the discussion of the four generic project life cycle phases underlines the importance of the project planning phase and therefore this study aims to focus on the project life cycle phase¹¹.

¹¹Chapter 4.5 lists all constraints on suitable projects.

2.6 Project Success

The project success is assessed after the end of the specific project. This assessment is evaluating of the project objective, as defined during the project initiation phase and as achieved after the project handover phase. If the project achievement varies from the project objective, it can be assumed that the project did not deliver the initially projected targets. While this evaluation may help to clarify the difference between the original project objective and what was ultimately delivered. Notably, it does not include project objective changes, which have been made during the project life cycle. Yet, these changes obviously have to be considered in this evaluation as well, especially if the project objective had been altered. Considering the original project objective and the changes made, each project stakeholder is bound to make an individual judgement about the project outcome based on their personal expectations.

However, for this study it is necessary to view a project outcome from a largely objective point of view. Therefore, the project is assessed against the specific project success criteria, which had been accepted by the project stakeholders at initial stage of the project. Generally speaking, the approach of judging project success on the basis of pre-defined project success criteria is accepted. On the other hand, there seems to be no common ground on the question, which project success criteria, should be deployed and how they should be assessed (Jugdev and Müller 2005); even the suggested definitions vary.

It can be concluded that project success lacks a common definition, and thus in perspective of this research it seems necessary to start with a definition prior to discussing criteria as well as a framework for project outcome assessment.

2.6.1 Project Management and Project Success

The expression ‘Project Management Success’ is frequently found linked up with project success (Munns and Bjeirmi 1996, Baccarini 1999). However, the aforementioned expression merged with the widely undefined term ‘project success’

may presumably lead to confusion and misinterpretation. Therefore, this study adopts the term ‘project management professionalism’.

2.6.2 Project Success Criteria

The traditional approach to measuring the success of a project incorporates the project time scale, utilised resources and delivered functions. Time is simply measured by the actual duration of the project - from project initiation to project handover phase. The resources are presented as a value against the budget, as in how many resources such as staffing, services and goods were actually utilised. It would appear that in most projects only the outgoing financial flow of the operating company tends to be reported. The delivered functions traditionally are controlled by means of a checklist, which is included in the project statement of work or in the contract of the vendor. These traditional criteria are also known as the internal success criteria for a project or as ‘project success triangle’.

Wateridge (1998) investigated how IT projects could be measured, and, based on the finding that in successful projects the agreement on the success criteria was higher than in failed projects, states:

“Project managers must get agreement from all stakeholders on the criteria for success through better communication, particularly on the more subjective issues, and then, only then, can project managers decide on the factors necessary to deliver success.” (p. 63)

Likewise, this recommendation can be found in Icmeli-Tukel and Rom (2001) as well as in Shenhar et al. (2001); it also serves as the starting point for the project success assessment in this study, whereby alternations of the project objective together with the project outcome is compared against these criteria.

An additional aspect for project success is the point of time when to measure project success. Pinto and Slevin (1988) as well as Pinto and Covin (1989) found out that depending on the project phase the factors for project success change for the project manager. In earlier phases the focus is on internal factors such as budget, schedule and technical performance, whereas customer satisfaction becomes more important towards

the final project phase. Depending on the stakeholders' success definition, this factor seems for the project manager rather important to consider within the project life cycle. Another study by Munns and Bjeirmi (1996) recommends that for a complete evaluation of the project success, it seems necessary to extend the project life cycle up to the point, "where the project (in this case the delivered solution) is dismantled and disposed of at the end of its useful life" to see the real success. According to this definition, this would lead to an integration of or combination with the product life cycle. In other words, this could be seen as the complete project process – added the operational phase until the disposal. This concept seemingly implies a complete modification of the generally accepted definition of a project. Nevertheless, considering the intention of Munns and Bjeirmi's (1996) recommendation, it seems insufficient to measure only the short-term outcome of a project. Yet, it can be concluded that both studies indicate that the point of time is important to consider when assessing project success.

Shenhav et al. (1997, 2001) developed a Multidimensional Strategic Concept, which is a framework to assess project success by "showing how different dimensions mean different things to different stakeholders at different times and for different projects" (p. 699). It is generally agreed that this framework delivers a comprehensive approach to project success assessment: First, this approach differentiates between projects assuming that different projects need different assessments¹². Second, it combines the eminent criteria with the company's strategic orientation, and finally, it shows the dynamics of project success considering the time factor.

The combination of these three elements cannot be found in the models discussed by, for instance, Munns and Bjeirmi (1996), Icmeli-Tukel and Rom (1998) or Baccarini (1999).

¹²Dvir et al. (1998) as well as Icmeli-Tukel and Rom (1998) support the idea that in the context of project success assessment 'one size does certainly not fit all'.

2.6.3 Project Outcome Assessment

This study employs the Multidimensional Strategic Concept as a descriptive model for project outcome assessment in. In accordance with the above-presented project distinction, the researched IT projects are classified. Moreover, as in regards to the success dimensions and criteria, the IT project objectives are described and grouped up within the suggested four dimensions. In this study, the selected IT projects are assessed within the first two dimensions dealing with the dynamics of time:

- The first dimension can be assessed during a project's execution and in the final stage of the project and
- The impact – the customer's satisfaction – can be assessed within the second dimension a few months after the product was handed over to the customer.

The advantage of this approach seems to be that the project outcome of different projects can seemingly be assessed and compared straightforwardly.

2.7 Conclusion

This research seeks to provide insight into whether motivation can explain why IT projects tend to fail, and therefore a holistic view of the project has to be provided. Referring to the debate on project risk research studies in Chapter 1, this requirement can be considered essential, and can also be seen as a prerequisite in the following research strategy discussion in Chapter 4. Although the requirement of a holistic view emerged from the discussion of the project risk research studies in Chapter 1, these studies do seemingly not consider the three project aspects, which have been identified in this Chapter as essential in order to complete the Comprehensive Problem-solving Picture from a project management point of view:

First, as argued earlier in this Chapter, no up-front limitation seems to be imposed on one or additional project stakeholders. The research strategy discussion in Chapter 4 continues this discussion examining to what extent this aspect influences the research strategy. To ensure a structured and systematic approach, the stakeholders, depending

on their involvement in the IT project, are grouped into contribution stakeholders, direct stakeholder and indirect stakeholders.

Second, based on the project risk research evaluation, in order to present a holistic view on the project the project environment has to be considered. For this purpose, the project environment is separated into the socioeconomic and the organizational environment. The PFM Model serves as a guideline to structure the collected evidence and to assess the maturity of the operating company – in other words, in which way the organizational environment supports the project execution.

Third, to provide a structured overview of the project management tools and techniques deployed in the observed IT projects a modified version of the PMI® project management methodology was selected. The reason for the selection of this methodology is its wide circulation, which may facilitate comprehension of this study's background and foundations.

Furthermore, theoretical aspects such as project life cycle, project size requirement and project outcome have been discussed in this Chapter, as they seem to apply to the context of this study. The identified project management aspects in this Chapter provide the content for the IT Project Process Model (Figure 2).

3 Motivation in the Work Environment

3.1 Summary

This Chapter discusses the aspects that are required to determine a lens of motivation, which may then enable the researcher to view and examine IT projects. Firstly, this Chapter enters into a general discussion about motivation and resistance with the intention to create a solid foundation. Secondly, for the purpose of conducting research, a suitable motivation theory is selected. Finally, this Chapter discusses two relevant and vital aspects of this study: the organizational culture and the global focus of IT projects.

3.2 Motivation and Resistance

As outlined in Chapter 1, this study focuses on motivation within the context of a work environment for (IT project) group objectives in this age of Internet and Intranet. Ambrose and Kulik (1999), in reference to Pinder (1998), describe work motivation as

“the set of internal and external forces that initiate work-related behaviour, and determine its form, direction, intensity, and duration. Work motivation is a middle-range concept that deals only with events and phenomena related to people in work context” (p. 231).

Furthermore, it is necessary to consider that job-related motivational factors can change over time (Wiley 1997, Rabey 2000, Langbert 2002, Holland et al. 2002). Therefore, a suitable motivation theory should take into account people’s need for motivation in a today’s work environment.

3.2.1 Intrinsic Motivation

In his research on motivating factors of Information System (IS)¹³ personnel Courger (1988) states: “The results of my most recent study of 1.800 analysts and programmers, however, hold good news for managers: the number one motivating factor for IS personnel is the work itself.” (p. 60)

¹³Information System personnel are the technical contribution stakeholders of an IT project.

Whereas Couger (1988) focuses exclusively on IS personnel, this study also includes non-IS personnel, which is due the holistic view of IT projects as applied here. Likewise, Gee and Burke (2001) incorporate non-IS personnel arguing that today's tendency to consider fulfilment of the employees' needs focuses on the task itself. In other words, the task itself plays an important role when it comes to the human need for motivation in today's work environment.

Intrinsic motivation is the psychological reward from the work task itself. In this sense it is this inherent satisfaction itself, which can motivate personnel to execute and complete a task (Ryan and Deci 2000). As research shows, intrinsically motivated human resources care about their work, perform better at problem-solving tasks, look to improve and above all feel energized and fulfilled when performing the task well. Intrinsic motivation is associated with a better conceptual understanding, greater creativity and richer experience (Bumpus et al. 1998 with references to Deci and Ryan 1992). All aspects mentioned can be defined as key elements of IT projects.

So far, intrinsic motivation, based on the psychological reward from the work task itself (Ryan and Deci 2000), is discussed only from the individual's point of view. This study examines IT projects, in which a team has to complete a group objective. Studies comparing the effectiveness of semi-autonomous groups and traditionally organised groups report higher effectiveness in semi-autonomous groups (Cordery et al. 1991, Janz et al. 1997). In other words, intrinsic motivation also affects individuals in a group setting such as an IT project. The following discussion considers these findings.

In contrast, a further differentiation between intrinsic motivation as a state versus intrinsic motivation as a trait-like characteristic (Amabile et al. 1994, Eccles and Wigfield 2002) and the effect on career success (Judge et al. 1999) is not considered in this research; this being mainly due to a lack of the exigency as well as accurate research in a work environment.

It has to be mentioned here that most research outcomes refer to the private sector and consequently the question arises whether intrinsic motivation also could work for the

public sector. Gabris and Simo (1995) argue that there are no significant differences between employees in the private or public sector. In fact, Peled (2000) states that in a functional project team setting effective project teams can be built also in the public sector, even though these teams are slightly weaker than in the private sector. These findings support the writer's view that this study does not need to limit itself to the sector or industry of the identifiable operating company.

3.2.2 Extrinsic Motivation

Whereas intrinsic motivation is driven by the satisfaction of the task itself, extrinsic motivation shifts the focus on the execution of a task to achieve a separable outcome. In contrast to intrinsic motivation, extrinsic motivators are controlled by others.

The most common feature of extrinsic motivation is commonly seen as tangible rewards such as pay rises, bonuses and benefits. The findings of the effects of tangible extrinsic rewards on intrinsic motivation seem controversial. Deci et al. (1999) state:

“As research has shown, there are conditions under which tangible rewards do not necessarily undermine intrinsic motivation, but the evidence indicates clearly that strategies that focus primarily on the use of extrinsic rewards do, indeed, run a serious risk of diminishing rather than promoting intrinsic motivation.” (p. 659)

A possible explanation for this might be that people feel controlled by an extrinsic reward, whereby their sense of self-determination (choice) will finally be undermined. This effect, also known as 'crowding-out effect' (Frey and Osterloh 2002), is mainly demonstrated by laboratory experiments deploying game tasks (free-time measure) in an educational environment. Especially in the study of Deci et al. (1999) the controversial debate becomes obvious when taking into account their detailed analysis of the Cameron and Pierce' (1994) findings.

A historical overview of studies researching and discussing the influence of extrinsic on intrinsic motivation is available on the Deci's (2001) homepage. This list includes, for example, the study of Wiersma (1992) as a supporting study for Deci's findings during free-time measure. Additionally, Wiersma's (1992) meta-analysis researches the effect

of extrinsic on intrinsic motivation during task performance and with an extrinsic reward in effect. In this case, though, the results of the free-time measure are not supported. The experiments measuring performance show an additive effect on motivation. Another meta-analysis by Guzzo et al. (1985) concludes that combined initiatives, such as job redesign and financial incentive plans, generally produce greater effects than separate initiatives. This finding demonstrates clearly that in the situation of job redesign an additional financial incentive plan has an additive effect.

However, these findings are not necessarily controversial. Deci (1995) explains that if extrinsic rewards are given in a non-controlling way, they do not have the negative effect on intrinsic motivation. Hence, examining closer the acknowledgement of good work, the question arises in which manner as well as form rewards should be given. Gneezy and Rustichini (2000) researched this issue arguing that monetary incentives at low values would have a detrimental effect on performance. Only a higher monetary compensation produced higher performance. The definition of an acceptable – high – extrinsic reward depends though on the individual and is in the real-life world very difficult and subtle to determine (Frey and Osterloh 2002). On the other hand, in cases where large payments are not possible, Gneezy and Rustichini (2000) recommend “the rule ‘a small payment is better than nothing’ might be a bad rule” (p. 801).

Besides the tangible extrinsic rewards, there is the group of intangible rewards such as praise and positive feedback. Cameron and Pierce (1994) hypothesize that positive feedback does not harm an individual’s intrinsic motivation. The other side of the coin is however the negative aspect of intangible extrinsic motivation: Punishment. In quite the same way as the extrinsic rewards, punishment is controlled by others, for instance, the supervisor, whose principal duty is to motivate. In contrast to the effects of extrinsic rewards, the effect of punishment on intrinsic motivation is not seen as controversial: Punishment destroys intrinsic motivation. The reason for this phenomenon appears to be that using punishment for motivation only motivates individuals to do their best to avoid punishment (Deming 1993, Daniels 1999). More motivation, especially intrinsic motivation, allegedly cannot be created by the threat of punishment, and if any intrinsic motivation existed previously, it would subsequently be destroyed. Instead, Deming

(1993) recommends driving out fear, which means to completely remove punishment from work task motivation.

In summary, intrinsic and extrinsic motivation go hand in hand (Mahaney and Lederer 2006¹⁴). Especially intangible extrinsic rewards such as praise and positive feedback can support intrinsic motivation. Due to the difficulty of identifying the right measure for extrinsic tangible rewards and the challenge to give this reward in a non-controlling way, this study assumes a negative influence of task-related tangible extrinsic rewards on intrinsic motivation in IT projects – a pure work setting.

3.2.3 Toward Resistance

Generally speaking (Analoui 1995), resistance is a form of unconventional or irrational behaviour to express non-compliance with shared organizational values. Analoui (1995) states that this ‘dark side’ of organizational life is relatively ignored with a

“‘grin and bear it’ attitude, in the hope that these practices will ultimately fade away – but they never do. (...) Managers still find it easier to dismiss sabotage at the workplace as an act of madness, as a crime or as immoral practice instead of acknowledging the existence of such, perhaps, reactionary behaviour as expressions of discontent at work” (p. 48).

This self-expression of discontent at work appears to be the individual’s own rationale for this behaviour. Daly and Kleiner (1995) go one step further and argue that, because the manager is responsible for the subordinate’s performance, the managers should ask themselves whether the problem lied within themselves rather their team.

The Cognitive Dissonance Model explains that irrational behaviour is caused by blocked motives (Hersey et al. 2001 with references to Festinger 1957 and Kaplan 1982). In this Model the blocking of goal attainment, which may result in irrational

¹⁴Mahaney and Lederer (2006, p. 48) surveyed in-house project managers and found a supportive “effect of intrinsic rewards on satisfaction and quality as well as of extrinsic rewards on implementation process.” Even if certain aspects in this study could be discussed controversially, the positive effect of intrinsic and extrinsic rewards on the project success is definitely supported.

behaviour, is described as frustration. Frustration can occur as aggression, rationalization, regression, fixation, or resignation.

Analoui (1995) identified six forms of unconventional behaviour within a work environment: (1) Pilferage, (2) indiscipline, (3) destructive practices (sabotage), (4) non-co-operation, (5) disruptive practices and (6) misuse of facilities. In the case of sabotage, Analoui (1995) states:

“Sabotage is often employed when the saboteur, because of excessive managerial control and lack of autonomy, has found it difficult to use his or her initiative and creativity to further workers’ corporate interests and objectives.” (p. 58)

According to Deci, the causes for sabotage, the managerial control and the lack of autonomy, are key ingredients for intrinsic motivation. This fact has to be strongly considered when selecting a motivation theory based on intrinsic motivation, as discussed in the following section. Even though research suggests that individuals in a negative state of mind normally aspire to change their mood (Ashkanasy et al. 2002), for a project manager the threat rather lies, for example, in project stakeholder’s resistance during the IT project execution or the acceptance of the IT project outcome. Therefore, resistance from the perspective of a project manager is defined as an individual’s behaviour which is not directed towards achieving the project objective. From the project management’s point of view it is a type of irrational behaviour, which is extensively documented by symptomatic project risk research (Chapter 1.4).

Alternatively, from a psychological point of view, resistance is understood as rational behaviour of individuals. By providing an explanation for the individual’s rationale for their specific behaviour, a possible cause explanation is likely to be found as to why the individual does not comply with the group objective. By means of answering the question ‘why’, the explanation is expected to provide the missing link. This suggests that this research requires the selection of a motivation theory, which appears to be able to deliver this explanation in today’s project settings.

3.3 Motivation Theory

3.3.1 Motivation Theories for the Work Environment

As indicated in the previous Chapter, the specific motivation theory, which is required for this study, has to support today's human needs for motivation in a work environment. Furthermore, it is assumed, that recently discussed motivation theories can reach a wider audience. Ambrose and Kulik's (1999) research studies on work motivation, published between 1990 and 1997, identify seven traditional motivation theories: (1) Motives and Needs, (2) Expectancy Theory and Equity Theory, (3) Reinforcement Theory, (4) Goal-Setting, (5) Cognitive Evaluation Theory and (6) Work Design. These seven traditional approaches are discussed as follows in order to assess whether one of them can meet the requirements of this study.

Motives and Needs

It is generally agreed that research about motives and needs "peaked in the 1970s and early 1980s, and the last fifteen years has seen little empirical or theoretical research" (Ambrose and Kulik 1999, p. 233). In addition, Ambrose and Kulik (1999) highlight that recent research is primarily theoretical and that no clear link between job attributes and work behaviour could be established, as well as that "none of this research appears in mainstream management journals" (p. 236) - with the exception of Herzberg's theory of motivators and hygiene factors, which is frequently presented within research of motives and appearing in mainstream management journals. Due to the scarcity of empirical or theoretical research conducted during the last 15 years, the applicability for today's environment and for this study is thus not provided.

Expectancy Theory and Equity Theory

Similar to the equity theory, research on the expectancy theory declined substantially in the 1990s. Additionally, Ambrose and Kulik (1999) report that the focus of the 1990's literature on the equity theory is fundamentally not on work motivation. Consequently, due to the lack of current academic support, a further discussion of one of these two traditional motivation theories in the context of this study has proved to be unnecessary.

Reinforcement Theory

Reinforcement theory is technically defined as behavioural consequences: “Behavioural consequences are those things and events that follow behaviour and change the probability that the behaviour will be repeated in the future” (Daniels 1999, p. 25).

Many studies have noted that research during the 1990’s concentrated on field settings and began to explore international applications with a focus on monetary reinforcement (Ambrose and Kulik 1999). Because of the current trend toward globalisation, this orientation towards field settings and international application makes this approach interesting. Ashkanasy et al. (2002) observe the trend towards globalisation, service orientation and technology. While the effectiveness of this approach has been widely reported as very successful (Andrasik 1989, Romero and Kleiner 2000), the success in service-oriented areas was comparatively limited. Stajkovic and Luthans (1997) argue that improvements in manufacturing settings were higher than in service settings. Furthermore, there is a clear tendency that current research is focused on monetary reinforcement. As discussed in reference to extrinsic motivation, monetary reinforcement may destroy intrinsic motivation. Therefore, it becomes apparent that the reinforcement theory is not appropriate for this study.

Goal-Setting

Within this theory, goal setting and giving feedback (to show progress) are seen as the most effective methods (Latham & Locke 1991, Locke 1996). On the other hand, there are conditions, which may limit the effectiveness of goal-setting. Staw and Boettger (1990) argue that goal-setting directs the individual focus toward goal achievement at the cost of other desirable behaviour patterns. Another behaviour research study shows that individuals can experience conflict when opting for multiple goals, which may result in the sacrifice of performance for one goal in favour of another (Gilliland and Landis 1992). Moreover, in regards to complex tasks, Mone and Shalley (1995) state that “do your best” (p. 251) goals lead to better performances than more specific (difficult and complex) goals. These findings reflect clearly that this approach is also not appropriate for this study. Projects require team behaviour when aiming to find one group solution; an individual’s flexibility is required to sacrifice individual goals in

favour of the project group objective. Furthermore, because of the possibility to sacrifice one goal for another, the overall complex project objective consisting potentially of multiple sub-objectives could be counter-productive to the approach of the goal-setting theory.

Cognitive Evaluation Theory

Deci's (1971) Cognitive Evaluation Theory (CET) focuses on the enjoyment of the activity itself, which may generate within an individual a sense of self-determination (choice) and competence. Based mainly on laboratory research in educational an environment utilising games, CET's deployment in a work task setting is seen as controversial (Cameron and Pierce 1994, Renn and Vandenberg 1995). Due to lack of research in work environments, its focus on task activity and a lack of structured framework supporting practitioners in the creation of the necessary intrinsic environment, the CET is again not appropriate for deployment in this study. Nevertheless, Ambrose and Kulik (1999) argue that the "CET provides a very strong theoretical definition of motivation" (p. 257) and "is beginning to integrate individual measures (e.g. motivation orientation) with contextual variables (e.g. feedback) that influence motivation" (p. 257).

Work Design

Hackman et al.'s (1975, 1976) Job Characteristics Theory (JCT) is based on five core job dimensions of job design: (1) Skill variety, (2) task identity, (3) task significance, (4) autonomy, and (5) feedback. These characteristics form three distinct critical psychological states, which are described as (1) experienced meaningfulness of the work, (2) experienced responsibility for outcomes of the work, and (3) knowledge of the actual results of the work activities. It has been suggested that these three critical psychological states are responsible for both the personal and work outcome: high internal work motivation, high-quality work performance, high satisfaction with the work and low absenteeism as well as staff turnover. The employee growth need strength was originally included to moderate the relationship between the core job dimension and the personal and work outcome. Due to JCT's focus on task purpose (the whole job), Wong and Campion (1991) extend this theory by adding task activity. Wong and Campion (1991) examine how the motivational values of task (task activity)

combinations are related to motivational values of the job (task purpose) and conclude that the task activity is positively related to motivational task purpose.

Renn and Vandenberg (1995) claim that job dimensions have a direct effect on the outcome variables, yet they conclude that the three critical psychological states cannot be accounted for arguing that the critical psychological states in the model are not complete. Therefore, the conclusion can be drawn that the intrinsic rewards based on task activities, which are the focus of the CET, are not included in JCT (Wong and Campion 1991, Thomas and Tymon 1997). Ambrose and Kulik (1999) state a “substantial interest from researchers and practitioners in work design during the 1990’s (p.257)” and comment that little research has been done on JCT since 1993. It is somewhat surprising that they consider this decline as appropriate after twenty years of research attempting to provide a clear picture. Additionally, they recommend to continue exploring the possible economic and efficiency trade-offs that apparently result from designing jobs following JCT principles. Hence, it can be concluded, owing to the JCT’s focus on task purpose while at the same time neglecting task activity, this theory yet again seems not appropriate for the purpose of this study.

3.3.2 Selecting a Motivation Theory

The CET and the JCT with their focus on task activity and task purpose respectively were identified as unsuitable for this study. In fact, Wong and Campion (1991) argue that task activity and task purpose are positively related. A PhD study is a good example: The psychological reward of the task activity to conduct a PhD study is necessary to maintain this task for a lengthy period of time. Without the reward of the task purpose, the danger of getting astray or not finishing the study at all would be high. The intrinsic motivation, which is included in the task activity, answers ‘why’ people behave in a certain way. The task purpose answers the ‘what’ goals are set. Ryan et al. (1996) argue that the goal content, the ‘what’, has to be considered¹⁵. Thamhain’s (2004) project management study supports this finding stating that

¹⁵Ryan et al. (1996, p. 16) „consider them in terms of the extent to which they tend to serve intrinsic psychological and organismic needs versus extrinsic, derivative desires.”

“one of the strongest catalysts to team performance is the professional pride (task activity) among organizational members who are fuelled by visibility and a desire for recognition (task purpose)” (p. 45).

Consequently, a motivation theory, which combines task activity and task purpose, is required to understand the individual’s rationale for his or her behaviour.

Thomas and Velthouse’s (1990), with the improvements of Thomas and Tymon’s (1997), developed the Integrative Model with the empowerment inventory which combines the rewards for task activity and task purpose. In this Model the task activity can reward an individual with a sense of choice and competence. The task purpose can reward an individual with a sense of meaningfulness and progress. These four psychological components create the pride of workmanship. Deci (1995, p. 10) claims the proper question ‘how to intrinsically motivate people’ would be: “How can people create the conditions within which others will motivate themselves?”

Thomas and Tymon’s (1997) empowerment inventory provides a framework to setup an environment for intrinsic motivation. Intrinsic motivation can be generated by supporting all four psychological components. Subsequently, an intrinsic supporting environment may supply an individual with four intrinsic rewards: a sense of meaningfulness, choice, competence and progress. These intrinsic rewards are individual in the sense that one particular environment can have a different effect on different individuals. Therefore, intrinsic motivation has to be seen from an individual’s point of view. The building blocks describe how to create and sustain these four intrinsic rewards. Each set of the building blocks can be deployed

“as a checklist to troubleshoot any missing conditions that need attention for that intrinsic reward – to identify why an intrinsic reward is low and what needs to be provided” (Thomas 2000a, p. 48).

Thomas and Tymon (1997) support their Integrative Model with empirical research and in a work environment (Thomas and Tymon 1994, Liden et al. 1994, Gomez and Rosen 1994, Spreitzer 1995). Nevertheless, Thomas and Tymon (1997) state:

“Likewise, the model’s hypothesized building blocks may be incomplete. The integrated model as a ‘next improvement’ in theory offered to provide a foundation for further research refinements.” (p. 92)

Findings indicate that the Integrative Model evidently manages to combine the fundamental aspects of task activity and task purpose. Furthermore, the empowerment inventory contains the building blocks necessary to create an intrinsic environment, which thus could be applied to this study as a form of checklist. Consequently, this study finally adopts the Integrative Model with the aim to find an explanation of an individual's rationale for their behaviour.

3.4 Organizational Culture

It is widely accepted (Ryan and Deci 2000) that a work environment incorporates values and regulations, which are specified by the individual stakeholder's company. These values and regulations, in other words the organizational culture, are controlled by others and belong to the extrinsic realm. These findings suggest that this study needs to acquire a deeper understanding as to why these organizational values and regulations do not seem to contribute to the destruction of intrinsic motivation.

The second mini theory within the Self-Determination Theory (SDT) is the Organismic Integration Theory (OIT) describing the different forms of extrinsic motivation for values and regulations (Ryan and Deci 2000). In the context of this theoretical model extrinsic motivation is categorised in four groups which have different effects on the individual's feelings of autonomy and, thus, finally also on the individual's intrinsic motivation. Other than the previously described extrinsic rewards, this form of extrinsic influences can be internally accepted by the individual. Deci and Ryan (1985) describe this situation as the internalisation and integration of values and behavioural regulations. Ryan and Deci (2000) state:

“Internalisation is the process of taking in a value or regulation, and integration is the process by which individuals more fully transform the regulations into their own so that it will emanate from their sense of self.”
(p. 60)

The first group is the ‘external regulation’, which is perceived by the individual as wholly external. The second group is called ‘introjection’, which is perceived as somewhat external, and the third group is labelled as ‘identification’, which is perceived as somewhat internal. Last of all, the fourth group is called ‘integration’, which is

perceived as internal. It is thought that integrated regulations are the most autonomous form of extrinsic motivation; integration occurs when the individual has fully integrated the organizational regulations. In this integration state an individual's feeling for autonomy will not be experienced as in conflict with organizational regulations (Deci and Ryan 2002).

Finegan (2000) researched the impact of organizational values on organizational commitment and asserts:

“When an organization is perceived by an employee to be concerned about his/her welfare, the employee is likely to be affectively committed, but when the emphasis is on obedience to authority and bottom-line issues, the employee is likely to score high on continuance commitment.” (p. 21)

These findings support that organizational values and regulations can be accepted by an individual in a way that conflicts with the feeling for autonomy (intrinsic) do not occur. It is possible to hypothesise that intrinsic motivation is supported when an organization is perceived to be concerned about the individual's welfare. Additionally, within the context of project management theory, the influence of organizational values and regulations and their importance is interestingly also reported, for instance, by Buch and Rivers (2001).

These findings, while preliminary, suggest that organizational values and regulations, depending on the level of internalisation, do not necessarily destroy intrinsic motivation. Therefore, the behaviour, which is enforced by organizational values and regulations, has to be filtered, and this means, filtered in such a way that this behaviour is not necessarily the result of the individual's own rationale. Therefore, the type of behaviour, which is internalised to a high level, which Ryan and Deci (2000) described as either ‘identification’ or ‘integration’, has to be isolated. This process is presumably required for this study, because this component does not express the individual's own rationale, and therefore is not sufficient to support an appropriate deduction. Following the principle of triangulation, the resulting evidence may deliver a valuable first insight and direction, nevertheless has to be supported with other evidence that has not been influenced by organizational values and regulations.

Consequently and in view of the above, the organizational culture is integrated in the IT Project Process Model as discussed in Chapter 4.

3.5 A Global Focus on IT Projects

Owing to competitive pressure, a trend towards globalisation and the Internet, IT projects have undoubtedly become increasingly international, uniting stakeholders from different geographical regions. In view of this, this study considers the both national and international IT projects. Indeed, international projects may add more complexity to a project. This following list shows how the different aspects are integrated in this study:

The first condition is that the involved stakeholders are situated in different locations; the national IT project can also cover different locations in one country. In fact, the need for remote management is certainly not new to international IT projects and thus does not need to be considered separately in this study.

The second factor that derives from national border crossing is the language aspect. An additional country usually adds an additional language. Due to the fact that English undoubtedly has established itself as world language, this challenge is continually decreasing. Especially in the IT area, where customarily many software features and manuals have always been in English, the requirement for English language skills was and is already present. It is evident that the IT project language cannot not be seen as a challenge, which markedly leads to an inherent limitation of this study.

The third aspect is the cultural difference of stakeholders living in different cultural areas. Bournois and Chevalier (1998) in their multi-academic project study ‘Doing research with foreign colleagues: a project-life cycle approach’ interestingly state:

“Finally, what is striking, is not so much the cultural variables but rather the ability to manage peers who usually behave independently in their academic circles”. (p. 212)

This is specifically important for the project manager as it indicates that he or she has to be aware of different national cultures. In contrast, Bournois and Chevalier (1998) do not see different national culture as a major challenge for the possibility of working

together successfully. This combination of findings provides some support for the conceptual premise that the culture aspect certainly requires attention; on the other hand international teams do not necessarily need to be treated differently. Additionally, it is important to note that this study focuses on Europe only.

Yasin et al. (2000) support this line of thought in their ‘empirical investigation of international project management practices: the role of international experience’. This investigation studies business-oriented construction projects. Depending on the size of the specific international construction project, it can be assumed that the knowledge in the project management discipline is of more use for the project manager than the construction application area knowledge in comparison. Yasin et al. (2000) affirm

“that the differences between U.S. and international project managers were, for the most part, not statistically significant (...). This may have to do with the common nature of the project management body of knowledge and/ or the increasingly global nature of business and its culture in which these managers operate, regardless their country of residency.” (p. 8)

Yasin et al. (2000) focus their survey on PMI members with the majority of them living in the U.S. and Europe. Both studies present a similar picture for international projects in the Western cultural region in so far as cultural differences are considered, though, nevertheless perceived as not requiring any further consideration. Kirkman et al. (2001), similarly assess the situation of international teams from the motivational perspective arguing that motivated teams easily overcome cultural differences and therefore do not require any special consideration.

Motivational research with a focus on cultural differences appears to confirm the previous findings, which examine international teams under one single aspect. Herbig and Genestre (1997) identify and analyse international motivational differences arguing that intrinsic motivation is even regarded as effective in the cultural context of China and Japan, however adding that values and group orientation of Eastern workers are essentially different. These values as well as group orientation are, in fact, the most important ingredients in the process of intrinsic motivation. Herbig and Genestre (1997) elucidate this phenomenon by giving a clear example:

“Open communication, initiative and decisiveness are expected norms in most of Western managerial competences, and there is less emphasis on interpersonal sensitivity than in East Asia.” (p. 563)

Other research studies including Charles and Marshall (1992) found out that Caribbean hotel staff identifies salary, working conditions and appreciation for their work as key motivators, whereas salary in Western countries is not seen as a key motivator (Savery & Wingham 1991).

Despite these findings, Javed et al. (2006) report that managing cultural and language differences has the least effect on cost reductions within geographically distributed IT projects clients. The research methodology of this study is a survey of software managers, and its findings aim to demonstrate their project knowledge. This has to be seen in connection with today's project management methodologies that seem to lack the practical integration of a human-centred philosophy as well as the critique stated so far and further in the following Chapter. These managers surprisingly rate ‘understanding the requirements’, ‘managing changes’, ‘managing time delays’ and ‘understanding the need of quality’ as variables with high effect on cost reductions (Javed et al. 2006). On the other hand, though, they interestingly rate developing trust and managing cultural and language differences as the variables with the least effect – the two areas, where obviously technical support cannot be found in the project management methodologies.

3.6 Conclusion

Intrinsic motivation has been identified as an appropriate approach to motivate stakeholders in the IT project work environment today. The discussion of recent studies shows that an intrinsic approach that can motivate IT and non-IT personnel alike, also works for group objectives and is furthermore applicable in a project environment. Whereas intrinsic motivation is defined as being motivated by the task itself, extrinsic motivation is controlled by others. The effect of extrinsic on intrinsic motivation is most controversial. For the work environment of this study, extrinsic motivation based on tangible rewards is considered as problematic due to the difficulties of finding the right extrinsic reward, which can be seen as the requirement to present the extrinsic reward in the right way and the difficulty to get sufficient budget for the right extrinsic reward. The second occurrence of extrinsic motivation as intangible rewards is in the form of reinforcement or punishment. The research results of reinforcement clearly show that reinforcement is neutral or supportive towards intrinsic motivation. Punishment on the other hand destroys intrinsic motivation.

In this context, this Chapter examines seven traditional motivation theories. The CET and JCT were identified as two potential candidates. Based on the findings of the discussed studies, the Integrative Model, which combines the rewards based on task activity (CET) and task purpose (JCT) as well as provides the required framework, is selected for the purpose of research in this study. Furthermore, this Chapter discusses different theoretical aspects. Whereas motivation both in its intrinsic and extrinsic form seems to support change, the resistance to change can be considered as the opposite force; in this study resistance is understood as rational behaviour of individuals.

Another aspect takes into account the organizational culture, which is specified by the particular company. The organizational culture is controlled by others and belongs to the extrinsic realm. These findings reflect the fact that this study seeks to acquire a greater understanding as to why the organizational culture seemingly does not destroy intrinsic motivation.

4 Research Methodology and Design

4.1 Summary

In order to elucidate the simplified IT Project Process Model this Chapter first of all summarises the literature reviews of Chapters 2 and 3. Furthermore, this Chapter argues if a multiple embedded case study strategy based on a qualitative research paradigm is the appropriate approach for this study. Within this paradigm, ethnography was identified as the primary data collection process. Documents and artefacts as well as interviews were identified to constitute the secondary data collection process. By means of this research design, it can be expected that this study can collect evidence to explain how project environment and the project management processes can influence motivation - the commitment of the project stakeholders (Belassi and Tukul 1996).

4.2 The IT Project Process Model

The simplified IT Project Process Model (Figure 2) intends to create the opportunity to view projects through the lens of motivation. This can be seen as key subject of this study resulting from the findings of the project risk research discussion in Chapter 1. The findings reflect the hypothesis of this study that the project outcome depends on a holistic project view as well as the integration of a human-centred philosophy. The simplified IT Project Process Model seeks to provide the structure for elucidating the core research question of this study.

The previous two Chapters discuss the elements that shape the simplified IT Project Process Model. These discussions make available the theoretical background to support the IT Project Process Model. As a result, two conceptual frameworks emerged with the aim of:

- Displaying the awareness of academic propositions,
- supporting the researcher in data collection,
- supporting data analysis (data display and conclusion drawing) and
- supporting future cross case analysis.

The Conceptual Framework: Holistic View

The first conceptual framework is the Holistic View integrating the two aspects that present a holistic view, which is the project environment and applied project management. These two aspects are discussed in detail in Chapter 2: The literature review of project management and the literature review of motivation in Chapter 3. Chapter 5 and 7 structure and analyse the collected evidence for Project1 and for Project2 respectively. The conceptual framework Holistic View is divided into:

- Project outcome,
- project environment and
- applied project management methodology.

Appendix A displays the complete template¹⁶. The findings of the project risk research debate in Chapter 1 suggest that the project environment is identical with the socioeconomic and organizational environment. As a result of the discussion in Chapter 2, the PFM Model was selected to describe the organizational environment for a project. Additionally, the discussion in Chapter 3 identified the organizational culture, which due to its external control also seems to belong to the project environment. It appears that this integration is required to understand that, yet depending on the level of internalisation, organizational values and regulations do not necessarily destroy intrinsic motivation. This clearly shows that the organizational culture has to be filtered and consequently integrated into the holistic view. Owing to the fact that behaviour apparently needs to be examined, the organizational culture is discussed first, which evidently is strongly influenced by the organizational culture.

¹⁶This structure is a result of the project live cycle and project outcome discussions in Chapter 2 as well as the related research discussions in Chapter 4.

Subsequent to the analysis of the project environment, the conceptual framework Holistic View concludes with the deployment of the project management methodology. With the objective to present the level of project management, which was applied in the researched IT projects, to a wide audience, an enhanced version¹⁷ of the project management methodology PMBoK® (2008) has been selected. Likewise, this project management methodology provides the structure for the collected evidence.

The Conceptual Framework: Motivation

The second conceptual framework is Motivation providing the motivational assessment. In Chapter 2, the IT Project Process Generic Project Stakeholder Model offers a structure for the analysis of the involved stakeholders (Figure 4) and argues why an up-front limitation on one or more project stakeholders may not be appropriate for this study¹⁸. Appendix B supplies a template for the conceptual framework Motivation, which is deployed for the units of analysis in Project1 (Chapter 6) and for the Unit of Analysis in Project2 (Chapter 8), presenting the collected evidence resulting from an analysis of the motivational situation of the involved stakeholders. The conceptual framework Motivation is structured in:

- Resistance of the Unit of Analysis,
- impact on the project outcome and
- Template Analysis of the motivation of each stakeholder.

Each Unit of Analysis is defined both by resistance towards the group objective and a Template Analysis of the motivation of the selected stakeholders. The Template Analysis, in turn, is based on the selected motivation theory, the Integrative Model, which seeks to allow a deeper insight into stakeholder motivation. It appears that this structure provides the necessary flexibility allowing a considerable number of units of analysis within the same project.

¹⁷The project management methodology of the PMBoK® (2008) is elucidated by the critique as discussed in Chapter 2.4.

¹⁸In Chapter 2.2.2, the analysis of the introduced project risk research studies delivers insight as to why an up-front focus on some stakeholders would limit this study. This discussion continues from a research design point of view in Chapter 4.3.1.

4.3 Research Strategy Discussion

On the whole, this study deals with people - their perceptions, attitudes and beliefs as well as feelings and emotions. Consequently, the underlying ontological approach that is selected for this research emphasizes subjectivity, description, interpretation and agency (Denscombe 2007). This approach is called phenomenology. In this respect, this research seeks to provide insight into how projects are experienced by the involved stakeholders, and thus accepting the possibility of multiple realities, in which different interpretations are equally valid. The selected ontological approach of phenomenology can be defined as the causal philosophy for this study recommending a detailed description of the investigated experience.

In reference to the literature debate Creswell (2003) describes ten strategies that are categorised by three research methods: quantitative, qualitative and mixed. Each method is linked with a set of possible research strategies. The set of strategies proposed for the quantitative approach are experimental and non-experimental designs such as surveys, and for the qualitative approach narratives, phenomenologies, ethnographies, grounded theory and case studies. The last method is said to consist of sequential, concurrent and transformative strategies. In this model, the choice of the research strategy depends on the research approach. In contrast, Yin (2003) states that “in fact, the contrast between quantitative and qualitative evidence does not distinguish the various research strategies” and instead offers five research strategies: Experiment, survey, archival analysis, history and case study. By selecting one strategy, the quantitative or qualitative evidence is not selected automatically. Yin (2003) argues that, for instance, survey questions can “rely on qualitative and non-quantitative evidence”.

Therefore, it can be concluded that the research strategy is selected in relation to the particular research study and the evidence is ultimately a result of how this strategy is actually deployed. This result can be a qualitative, a quantitative or a mixed method approach. This study requires a strategy, which is appropriate for the researched phenomenon and at the same time provides sufficient flexibility in the approach to data collection. Therefore, it follows Yin’s (2003) method, in which ethnography is defined as a data collection technique.

In accordance with this definition, the five basic strategies can be seen as sufficient for this research. A further differentiation, for example, as suggested by Tesch (1990), who defines 28 approaches classified into four branches, or by Miller and Crabtree (1992) who organise 18 types in various domains, is not considered as necessary due to the appropriateness of the above-mentioned method.

4.3.1 The Traditional Strategy: A Survey based on Quantitative Evidence

Yin (2003) offers three conditions as to when one of the five research strategies are to be deployed. These three conditions are (a) the form of research question, (b) the control of behavioural events, and (c) the focus on contemporary events. Applied to this study: (a) The type of question asked is a classical ‘why’ question, (b) the researcher has practically no control over the actual behavioural events, and (c), as the academic review of motivation explains, this study is focused on contemporary events.

Other Strategies

The first strategy experiment may provide the answer to the ‘why’ question and thus could be deployed for contemporary events, however also requires the control of behavioural events, which is obviously not the case in this study. An archival analysis, strategy number two, can definitely also not be recommended for this study, as archival records, which could deliver the evidence to assess motivation, are apparently not available. Therefore, evidently this strategy is not applicable to this study. The third strategy, history, seems to answer the ‘why’ question and also supports the condition of this study concerning the control of the behavioural events, but it is clearly not focused on contemporary events. Furthermore, it is generally agreed that motivation changes over time, which thus eliminates the strategy history from the choices applicable for this study.

Traditional Survey Strategy

Research strategy number four is the traditional survey strategy, which demands quantitative evidence in the form of mass data to support a hypothesis - as seen in many project risk research studies (Yin 2003). With few exceptions, most of the cited studies in Chapter 1 follow a survey strategy based on quantitative evidence (e.g. Jiang and

Klein 2000 and 2001, Riggle 2001, Hartman and Ashrafi 2002, Jiang et al. 2002b). Whereas this strategy appears appropriate for researching project symptoms (depending on the numbers of symptoms found), it ultimately fails to provide the Comprehensive Problem-solving Picture as discussed in Chapter 1. Therefore, it can be concluded that the survey strategy based on quantitative evidence is not appropriate for this study.

One question that needs to be asked, however, is why it seems impossible for project risk research to produce an underlying cause explanation. One possible answer may be that a survey based on quantitative evidence plainly cannot grasp the element of motivation. As a logical consequence, studies based on a survey strategy utilising quantitative evidence would not be applicable to motivation research. Yet, this is definitely not the case. The cited motivation research literature includes laboratory experiment strategies as well as survey strategies, and both are based on quantitative evidence. Consequently, a survey strategy apparently can gauge motivation.

The difference can be identified in the setup. The cited motivation research literature seems to have a clear focus from the very beginning, for example, on a specific hypothesis or motivation theory. In other words, a survey strategy appears to be appropriate if a precise focus can be set, right at the beginning. This precise focus cannot be located in project risk research at this point in time, because the focus in the form of an underlying cause explanation is not known. It becomes evident that a basic research in project risk research would be required. By way of illustration, Herzberg (1982) places emphasis on a qualitative over quantitative investigation, because first he prefers open-ended questions to pre-written ones and, secondly, he considers factors compiled and limited by the researcher. This enables the researcher to discover something new and unexpected.

The foundation of the following research was created based on Herzberg's findings. The necessary precise focusing of the resulting research, based on quantitative evidence, is feasible on this foundation, which proved Herzberg's findings (Tietjen and Myers 1998, by referring to Herzberg 1982). Including an up-front definition of the participants as well as pre-written questions, this describes clearly the current situation in project risk research¹⁹.

4.3.2 New Research Outcomes require a Different Approach

Case Study Strategy

Yin (2003) explains that the differentiation between a case study and other research strategies evolves from the desire to understand

“(...) complex social phenomena. In brief, the case study method allows investigators to retain the holistic and meaningful characteristics of real-life events – such as individual life cycles, organizational and managerial processes, neighbourhood change, international relations, and the maturation of industries.” (p. 2)

IT projects tend to group individuals into a social group for a limited period of time and with a unique objective. During this live event the social group presumably develops their own culture, which is undoubtedly a complex social phenomenon. Hence, this suggests that a case study strategy may be the appropriate strategy for this study.

This research study intends to follow Yin's (2003) suggested process of conducting a case study: designing case studies, conducting case studies: preparing for data collection, conducting case studies: collecting evidence, analysing case study evidence and reporting case studies (following the table of content, Yin 2003, p. V).

The Qualitative Research Paradigm

The selection criteria for a qualitative research paradigm are based on the main characteristics by Creswell (2003) and Rossman and Rallis (1998):

¹⁹In Chapter 2.2.2, the discussion of the introduced project risk research studies concludes that all stakeholders are important to achieve project success.

- Qualitative research takes place in the natural environment of the participants with the objective to get involved exhaustively in the daily life of the participants. For this purpose the qualitative researcher has to go to this environment.
- Qualitative researchers try to involve the participants actively in the collection process, but do not disturb the site more than necessary.
- Qualitative research is emergent in the sense that the research questions may be changed or refined based on the emerging aspects.
- Qualitative research is interpretive. The researcher seeks to “filter the data through a personal lens that is situated in a specific socio-political and historical moment. One cannot escape the personal interpretation brought to qualitative analysis” (Creswell 2003).
- Qualitative research views a social phenomenon in a holistic way.
- The qualitative researchers have to be aware of their subjectivity and how this may influence the study.
- The qualitative researcher uses complex arguing which is multifaceted, iterative and simultaneous. The simultaneous activity includes the area of collecting, analysing and writing up data.

The qualitative research paradigm, as characterised, is selected based on the researched content of a study as well as on describing and interpreting a specific social group. Hence, from the point of view of this study, this concerns the project team and their group behaviour (motivation) towards change (the project objectives). Avison et. al (2001) support this view:

“No other research approach (qualitative focus for the IT field) has the power to add to the body of knowledge and deal with the practical concerns of people in such a positive manner” (p. 44).

Multiple Embedded Case Design

Yin (2003) describes four basic case study designs. These four basic types are a single or multiple case study designs and each of these designs can contain one or multiple embedded units of analysis. Based on the fact that motivation is perceived by each project stakeholder individually, multiple units of analysis have to be defined to present these individual perceptions. The stakeholders and stakeholder groups are the units of analysis for this study. In order to present the comprehensive picture, it is crucial that - in terms of the explanation of the individual motivation unit - the underlying causal explanation is cogent for each unit.

The consequences of a holistic single case study have to be considered before choosing a case study design. The holistic approach seems to imply the risk that the “entire nature of the case study may shift, unbeknownst to the researcher, during the course of study” (Yin 2003). In addition, critique is widely given in the form of fear about the uniqueness of the case study and the scepticism about the researcher’s ability to do empirical work. Nandhakumar and Avison (1999) clarify this critique by using Curtis et al.’s (1988) single case study arguing that:

“[T]his in-depth study enables us to gain insights into the complex social interactions in systems development, it also means that we must be cautious about generalising from this single study”. (p. 189)

Similarly, Vickers (1999) sees the increased need of in-depth studies based on qualitative research and focus on ethnographic evidence for IT projects, but also recognises their limitations. Likewise, Nandhakumar and Avison (1999) state by citing Walsham (1995) that:

“[T]he generalisation from the research reported should be seen as ‘explanations of particular phenomena derived from empirical interpretive research in specific IS settings, which may be valuable in the future in other organizations and contexts’. The understanding gained in this study (single case study) therefore provides a basis for understanding similar phenomena in other settings, rather than enabling the prediction of behaviour in other contexts. It also provides a grounded basis from which to continue further empirical investigations of the role of methodologies in IS development (one form of IT projects).” (p. 189)

Owing to the need for sufficient evidence, this study defines four units of analysis. Three units belong to one project, whereas the fourth unit belongs to a different project. The advantage of this construct is that a comparison between the four units can be made, where three units are embedded in one organizational environment and one unit is embedded in a different organizational environment. In other words, this approach allows comparing the behaviour of different units in the same setting as well as in different settings.

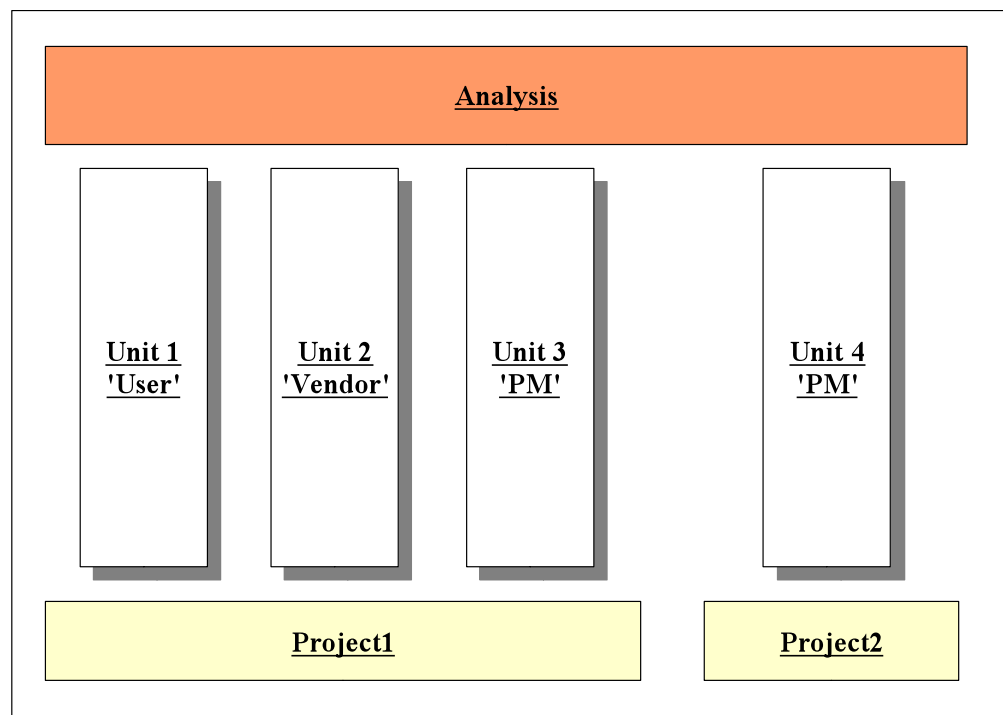


Figure 4) Projects and Units of Analysis

4.3.3 Primary Source of Evidence: Ethnography

The primary data collection process is ethnography, also known as participant observations or insider-ness. The secondary data collection processes are documents and artefacts as well as interviews.

Ethnography

Creswell (1998) describes the activity of ethnography:

“As a process, ethnography involves prolonged observation of the group, typically through participant observation in which the researcher is immersed in the day-to-day lives of the people or through one-on-one interviews with members of the group. The researcher studies the meanings of behaviour, language, and interactions of the culture-sharing group.” (p. 58)

It can be hypothesised that the looming presence of the researcher may cause reactive effects. Emerson et al. (1995) explain that the possibility of reactive effects should not be seen as contaminating to what is observed and learned. Moreover, in reference to this long-term integration of the researcher as an accepted project team member, the researcher may become sensitive to and perceptive of the behaviour of the other project stakeholders – the participants of the study. Furthermore, the researcher may be able to track norms and values of which participants within the specific culture may not be aware of. Labaree (2002) categorises the advantages of ethnography into four broad values: the value of greater access, the value of cultural interpretation, the value of deeper understanding and the value of clarity of thought for the researcher.

Relevance for this Study

Analoui (1995) argues that, referring to participant observations for the research on non-compliance in a work environment, the “popular survey methods such as questionnaires and structured interviews, would yield meaningless data” (p. 50) for behaviour related research. This aspect is seemingly important to consider, because non-compliance in a work environment is the behaviour that this study intends to observe. Vickers (1999) states commenting on a research strategy based on qualitative evidence, which has also been suggested by a historic review of IT development methodologies over the past 30 years:

“[T]here has been insufficient consideration given to organizationally- and individually-based IT problems due to a lack of research.” (p. 266)

And recommends that

“interpretive and critical qualitative approaches such as ethnographic, (...) may be appropriate to find out people’s responses to and relationship with

IT, what ‘works’ and what does not and how one might ‘do it’ better.” (p. 266)

The study by Pinto and Prescott (1988) seems a good example to elucidate this situation. Based on a questionnaire mailed to 586 PMI members, Pinto and Prescott (1988) assert that the personnel factor (motivation) is a marginal variable for project success. Due to the shortcomings of a survey strategy for this kind of research, Pinto and Prescott’s (1988) conclusion clearly has to be questioned. The personnel factor or better motivation is seen as an important variable for project success (e.g. Belout 1998) - as this study aims to demonstrate. The findings support the writer’s view that in order to answer the research question ‘Why do IT projects fail?’, a holistic view of the researched IT project has to be provided. It is evident that the most appropriate data collection process for this purpose is the selected primary data collection process of ethnography. Other data collection processes such as surveys and structured interviews are seen as unsuitable for this study, as they cannot offer sufficient insight into the phenomenon researched (Analoui 1995, Vickers 1999, Nandhakumar and Jones 2002).

Controversial Acceptance

The selected multiple embedded case study design, which is primarily based on ethnographic evidence considers Yin’s (2003, p. xiii) idea to discern that the “methods will be challenged from a rational (and an irrational) perspective and that the insights resulting from your case studies may be underappreciated”. Furthermore, Yin (2003b) challenges the use of research methods stating that

“[y]et, among nearly all social science research methods, case study research has received perhaps the least attention and guidance. The methodological literature covers the topic infrequently. Academic courses about designing and doing research case studies are rare. Although many textbooks are devoted to a closely related method – qualitative research – only a few texts deal directly with the case study method. Moreover, existing modes of information dissemination do not provide the forums to develop or convey such guidance. For instance, no journal of case study research exists, and no journal focuses exclusively on case study research methods.” (p. xii)

In addition to Yin’s impression, the acceptance of ethnographic evidence can also be seen as controversial. Lecompete (2002) explains “why policy makers don’t find ethnographic research to be useful” (p. 285): first, ethnography produces complex and

lengthy readings, second, ethnographic research shows what really happens in work sites and “it often details just what educators are up against in the current educational and political environment”, and third “ethnography frequently lacks the neat tables and numerical results to which policy-makers are accustomed” and also “they usually cannot be produced on the tight timelines required for policy-oriented work” (p. 286). These arguments outline clearly the controversial debate on the selected research method versus the traditional research methods.

Nevertheless, ethnography contributes to the flexibility in academic research, which is undoubtedly required for certain studies in today’s complex environment. Consequently, it can be suggested that this method should be accepted as an extension or further development of the traditional research methods as it may offer greater flexibility to the researcher. It is widely accepted that the traditional method of selecting the research “method for method’s sake” (Holloway and Todres 2003) has to be changed to the concept of appropriateness (Carter 1999a, Janesick 2000, Durling 2002²⁰, Holloway and Todres 2003). Presumably, only when having achieved flexibility in research methods, the appropriate research method can be selected “to respect as much as possible the primacy of the topic or phenomenon to be studied” (Holloway and Todres 2003, p. 347). The acceptance of this method is present in the increasing number of case studies based on, for instance, ethnographies in project risk research - as presented at the International Project Management Days 2003 in Vienna²¹.

Quality Concept

When arguing the acceptance of the selected approach, the requirement to follow the research guidelines cannot be ignored. Lecompete (2002) argues that “open-mindedness” in ethnography must not be mixed up with ignorance towards theory. The researcher has to be “strongly informed at both formative and summative stages by tacit and explicit theories” (Lecompete 2002, p. 286). Dey (2001) additionally stresses that the fact is not “whether foundational theories should be used in ethnographic research,

²⁰Durling (2002) campaigns for new research methods for PhD studies in the field of art and design. In the same way as this case study, the PhD studies in art and design are practice-based and face the problem of flexibility in research methods and the related appropriateness.

²¹For example, by Hartmann from the University of Calgary (PM days 2003).

but how they should be used” (p. 111). These aspects evidently have to be included in the quality concept of external validity. Yin (2003) describes four common quality tests for social science. In consideration of the order of the research phases, the test for the research design can be seen as the external validity. This test suggests the integration of theories and models necessary for the subsequent generalisation of the findings, which for a case study markedly rely on analytical generalisation. These theories and models are discussed in Chapters 2 and 3 considering how they could be deployed within the data analysis of this study. The test of construct validity advocates the utilisation of multiple sources of evidence and establishment of a chain of evidence for the purpose of data collection. This study’s case study protocol intends to explain the sources of evidence, and the coding aims to examine how a chain of evidence can be created (see case study database).

The combination of a case study database with a coding structure is seen as essential to present the facts in a critical way and to avoid under all circumstances the situation Nilan (2002) describes suggesting ethnographic fieldwork is notoriously messy and chaotic. In addition to these two quality tests, the question of reliability, which demonstrates that the operation of this study can possibly be repeated, may be answered in this study. Yet, concerns related to (1) the data collection processes, for example, deployment of a case study protocol (including the principle of triangulation), (2) the preparation for the field research including development of a case study database and (3) the process provided for data analysis such as description of how to structure the findings, have to be considered.

Based on the primary source of evidence and the resulting important relationship between the researcher and the project stakeholders, the question of reliability seemingly has to be extended. It can be suggested that this extension has to include all aspects in regards to entry point, positional space, ethical consideration and exit point of the researcher to support the field research in the way that the project stakeholders get “the latter the opportunity to speak freely according to his/her own knowledge structures” (Stenbacka 2001, p. 555). The following section dealing with ‘boundaries and their hidden dilemmas’ seeks to explain the procedure that may prevent the hidden

dilemmas occurring in this context. Internal validity is focused on data analysis and recommends pattern matching, explanation building and the utilisation of logic models. The final section of the case study protocol describes how these quality aspects could be integrated into the final case study report.

Finally, in view of Yin (2001) the construct validity advises for the composition that key informants should review the draft case study report to ensure quality. Therefore, the project manager of the researched IT project is selected as this specific key informant.

4.4 Overview Research Methodology

The research onion compiled by Saunders et al. (2003) manages to provide an overview of the selected research methodology for this study, which is discussed in Chapter 1 and in the previous part of this Chapter.

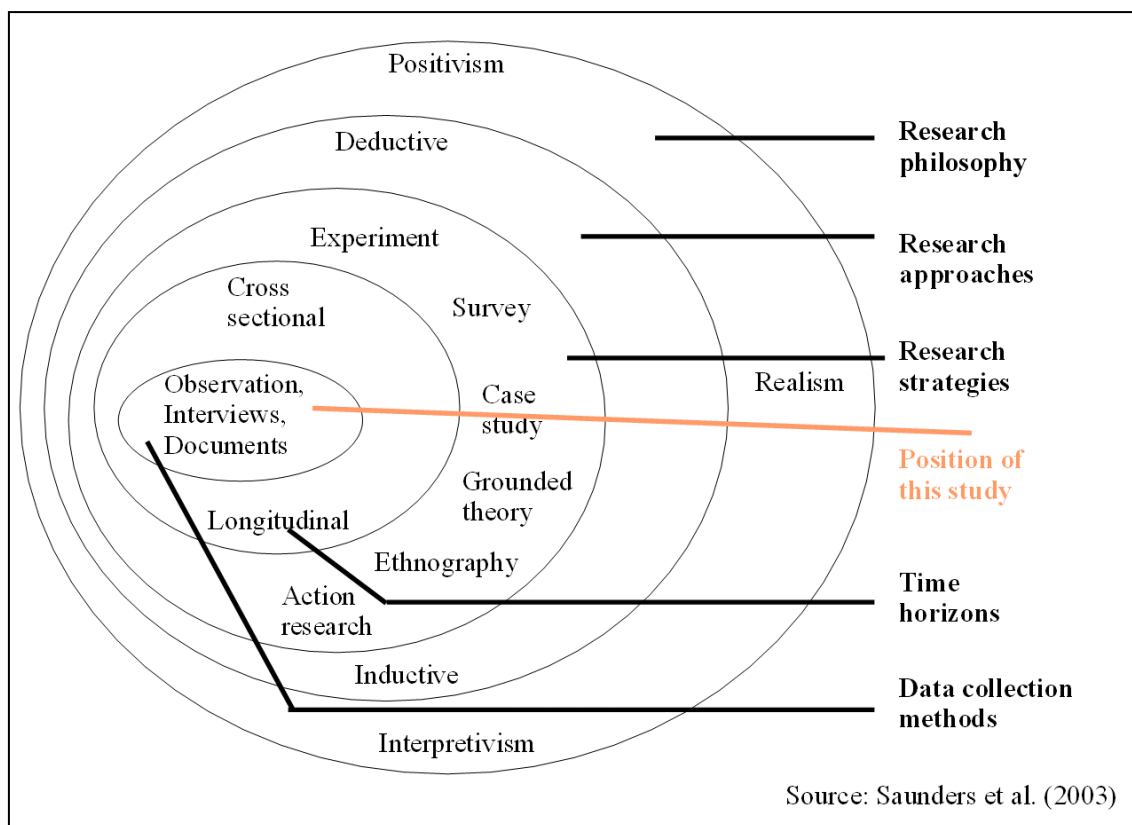


Figure 5) Selected Research Methodology

4.5 Constraints

A human-centred philosophy is concerned with people; people are different from each other, behave differently from each other and the same person may even behave differently under different circumstances or in the same situation at different times. Keeping the objective in mind to capture all aspects of the observed situation (as far as this is possible), the theory evidently has to be narrowed down to a manageable area. Therefore, it becomes apparent that an artificial boundary has to be set around the area of research.

This study focuses on motivation within a project environment, a setting in a mere work environment. The private environment of the individual stakeholder and the behaviour of the stakeholders at their usual workplace, which is obviously not part of the project environment, are defined as outside of this artificial boundary.

Based on the research discussion in the previous three Chapters, several constraints have been identified which may further define an artificial boundary in order to enhance the focus of this study:

- Owing to the importance of IT projects in today's business environment, an interest toward these projects is created to adapt business processes and products to the fast changing markets. This interest is apparently increased by today's high project failure rate.
- The second requirement for an appropriate IT project can be seen as project size. Due to the deployment of the discussed PFM Model, an appropriate IT project for this study has to be a medium-sized or large IT project. It has to be considered that frequently the project size is defined by numbers such as people in the project team, users or project cost. In contrast, with respect to the focus of this study, the decisive aspect to describe the size of an appropriate IT project is motivation. Therefore the influence of other projects on the project manager, the main actor, has to be minimized. As a result the project manager has to manage the researched IT project full-time and may not work on or manage other projects.

- Additionally, the project size has to be sufficient and the project manager's tasks have to be solely on the management of the project and not on technical (execution) tasks (Verzuh 1999, Jaafari 2003).
- The discussion of the project life cycle in Chapter 2 underlines the importance of the project planning phase. Therefore, the researched IT project has to be in the planning phase. Based on the primary source of evidence, sufficient time has to be available to conduct this research, and therefore the project planning phase has to last between two and six months.
- The discussion in Chapter 3 demonstrates that this study focuses on a sample of Western countries, which indisputably belong to the same cultural region such as Western Europe, the U.S.A., Canada, and Australia. Even by acquiring a focus on one cultural region only, the individual differences of stakeholders needs to be integrated by viewing intrinsic motivation as perceived by an individual stakeholder (Wiley 1995, Ashkanasy et al. 2002).

These findings further support the idea that these constraints outline the structure of an appropriate IT project that can research the motivation of the involved stakeholders and the influence on the project outcome methodically and pragmatically.

4.6 Boundaries and their Hidden Dilemmas

4.6.1 Entry Point

This study's field research is conducted in cooperation with an operating company and – if present – one or more vendors. Independently of the cooperation partner, the entry point for this study is the project planning phase. As defined previously, the planning phase starts after the project initiation, the 'green light' for the IT project. It would appear that the researcher should join the planning phase as early as possible.

To gain access to the IT project, two gatekeepers have to give their permission before all project stakeholders can be asked for their support and agreement. Owing to the vendor-customer relationship, the gatekeeper of the operating company - as much as the customer who is paying for the IT project - is the essential gatekeeper. The actual gatekeeper is the project sponsor, who is presumably supported and influenced by the project manager. Regarding the vendor, the project manager or the manager of the project manager has to be asked. Depending on the vendor-customer relationship, the decision of the vendor to support this study is expected to follow the decision of the operating company. A joint presentation (45-60 minutes) for the project sponsor and the project manager, where the objectives and the return-of-investment (RoI) for the operating company are presented, proved to be effective. An interest toward this study seemed always to be present (Avison 2001)²², however, without the offer of a RoI, the involvement of a company outsider was not justified. The RoI helped to convince the operating company to grant the researcher access. Apart from offering the company the outcome of this study and a short presentation of the organizational environment of the researched IT project, the key driver was to offer 50 per cent of the researcher's time supporting the project manager in administrative tasks in the project office, for example, document management. The researcher's professional experience and references undoubtedly were able to support this key driver successfully.

²²Avison et al. 2001, by citing Kock (1997), identify three failure forms (iceberg subjects, irrelevant subjects and no client) that can be avoided by means of a good presentation of the project objectives.

Moreover, on the one hand a 50 per cent offer would help to convince a project manager to support this study and on the other hand it may illustrate the negotiation about the 'positional space' (Mullings 1999) of the researcher. The positional space or the role which the researcher tends to take over within the researched IT project can be defined by the tasks the researcher agrees to carry out for the project manager in the project office. Furthermore, this acquired role within the project office team may give the researcher an excellent position for data collection; this being due to the central function of the project office. The central function of the project office covers the information exchange on a formal level, for example, meeting invitations, and also on an informal level, for example, behaviour and communication between project stakeholders in the project office, which can be observed and written down in the researcher's daily observations (primary data collection). In addition, the project office processes the project documents, in other words the input for the second data collection process. Depending on the task the researcher takes on in the project office, a specific form of contact with the project stakeholders can 'automatically' be established. This contact may support the researcher in the third data collection process, to get support of individual project stakeholders for conducting interviews.

4.6.2 Ethical Considerations

It is now generally recognised that the main ethical consideration is the protection of the individual. Hence, within this field research it is crucial that the involved project stakeholders must not ever be humiliated - no matter whether the stakeholders' action was right or wrong. The researcher's judgement on an action or reaction is not an authorized part of this study. In order to establish the required trust and avoid feelings of betrayal on part of the project stakeholders, they were first of all informed thoroughly about the scope of this study. Secondly, the researcher explained in detail how the collected evidence is processed and protected. This included informing the participants that a final case study report would be written in anonymous form. Names would not be provided in case they may

- link specific actions with individual stakeholders,

- identify the researched IT project or
- identify the companies behind them.

In addition, the final case study report was said to be published (if at all) only after the end of the IT project. In consideration of the project manager's concerns and position, he/she was assured preference when offering the final case study report for reading. Furthermore, during and after the study the collected evidence would not be accessible to the involved stakeholders, their management or the operating company. This may help to prevent any legal actions between contractual parties resulting from possibly conflicting evidence collected in this study. It was agreed that the researcher is not bound by contract or in any other way to the involved companies. Finally, the operating company and – if necessary – the involved vendor would consent to sign a letter of introduction which, as a legal document, guarantees these ethical concerns.

From the point of view of the operating company and the vendor, a non-disclosure agreement with the researcher was required to guarantee confidentiality. This agreement intends to testify that the researcher is not allowed to pass confidential information to external sources. For data collection and data presentation this agreement has no implications, because these tasks are part of the agreed cooperation contract between the researcher and the operating company (Weerd-Nederhof 2001).

4.6.3 Exit Point

In reference to the philosophy of open communication, the expected duration of time spent by the researcher in the project environment needs to be communicated to the team at the very beginning of the field study - the researcher is scheduled to participate in the project planning phase and leave the IT project afterwards. With the help of open communication negative expectations of the project stakeholders and the possible dilemma of disengagement should presumably be avoided or at least kept to a minimum. In fact, the method of open communication managed to achieve the desired result of a positive disengagement in both of the field study project environments.

4.7 Skills of the Researcher

Due to the crucial role of the researcher within a field study as the primary data collection instrument, the skills of the researcher such as personal values, background and experience, require identification. These practical qualifications are essential for the researcher “to grasp theoretical concepts presented in literature and translate them into useful constructs, definitions and operationalisations” (Weerd-Nederhof 2001, p. 526). Considering the assigned role and the primary data collection instrument, the researcher has to be clear that he/she is a sociologist doing field research and not a spy (Murray 2003).

4.7.1 Interview Technique

During an academic placement in Munich, Germany, from 1987 to 1992, the researcher came into contact with IT projects. This project opened up the possibility to observe a senior project manager interviewing users about their needs. This instilled the researcher’s interest, and continuous training in interview techniques followed thereafter. After completing a second academic study in Hertfordshire in 1993, the researcher started as an internal project manager with an international trading company, and, as a result, realised that a good interview technique can influence the quality of the information collected. This inspired the researcher to continue training and practice in order to further develop and improve interview techniques.

4.7.2 A View on the Operating Company

Within the first three work positions, the researcher first took on the role of project member and later project manager; from a contractual point of view the researcher was an employee with an unlimited work contract. Due to these positions, as an internal project manager for the operating company, the researcher developed an excellent understanding of the operating company. During this phase the interest in the research question of this study was created.

4.7.3 A View on the Vendor

Owing to the researcher's interest in experiencing the challenges of an external project manager, he accepted a position with a European service provider. In this role the researcher became responsible for the service (project) delivery in Germany. As a result of the changed contractual relationship with the operating company, which had become a customer with whom the researcher had a based-on-the-project-duration relationship, the researcher experienced the modified variables in an operational environment. This experience formed the understanding of the challenges a vendor faces in project work today.

4.7.4 General PM Knowledge

The interest in deploying a project management methodology was soon created within the researcher's first position. The researcher attended training programmes and continued studying resources and, at first this process satisfied his interest, but later the researcher recognised that something was missing in the available literature – at this stage this was obviously just a strong feeling. In the researcher's last position, before he started conducting this study, he was offered the job to set up the European project office in London. The objective was to introduce a common project management methodology specialising on the services our company was offering. This position provided the possibility to observe projects from a global point of view and contributed to his feeling that a crucial factor in the literature was missing.

4.8 Preparation for the Field

The following preparations had to be made in order to allow a focused data collection and processing in this field study.

4.8.1 Case Study Database

The case study database intends to structure the collected evidence supporting the researcher navigating through it.

Reference Number

The collected evidence is documented with a unique reference number including the type and subtype of document, creation date (or rather, the date which the document was prepared for) and a short comment. This reference number is written on the first page of paper documents and/or utilised as the filename. Apart from the reference number and the coding information with short comments, which actually is the main content for the analysis of the collected evidence, additional information for the collected evidence can be entered. This information provides for the researcher the possibility of searching for key words to build a chain of evidence.

Types and Subtypes

The type and subtype is the first part of the reference number. Based on this part, the collected evidence is structured. This system permits rapid location of the electronic files, printed documents and emails. Whereas the type is defined for all projects, the subtype allows an individual adaptation to the researched IT project. The following six types were identified as suitable for this research as they seem to structure even large-sized projects:

- JOT handwritten jottings
- ETH resulting ethnographic reports based on jottings and memory
- INT interviews
- PMM project management related documents
- PRE project presentations

- DOC work documents

While conducting this research, the structure of the sub-type PMM, which is based on the ten project management knowledge areas, proved to be sufficient to be deployed in both researched IT projects. Suitable sub-types can be created for the researched project. In Project1, for example, the sub-type 'doc-pricing' was added during the last month of the field observation, because the situation asked for it. In some situations, the collected evidence includes content that can be classified into various types and subtypes, for example, the minutes of a meeting, which was held several months before the researcher joined the project. In these minutes the scope of the project was written down and signed by the project initiator and vendor. In this incident the sub-types pmm-pm (scope management) and pmm-omee (other meetings) are appropriate. With regards to the objective of providing a case study database, which aims to assist the researcher in structuring the evidence by means of a chain of arguments, the sub-type, which best supports this purpose, should be selected. The meeting minutes with the signed project scope were classified together with the sub-type pmm-pm (scope management), because this type of evidence is important for the argument in context of the project scope.

Experience in the Field

Owing to the extensive amount of collected evidence, a case study database is essential for conducting a structured research - as outlined in this Chapter. The resulting requirements towards a case study database to support the discussed research methodology were anticipated already before the data collection was started. When launching the data collection process, the first version of the case study database became available and the data entry of evidence was therefore possible. After entry of approximately 20 per cent of the data collected for Project1, the underlying database structure was insufficient to satisfy the required flexibility in reporting. As a result, a completely new, second case study database was created. However, the new and more complex structure of the tables did not allow a transfer of the evidence already entered and the data entry had to be repeated.

In particular, the second version of the case study database was improved by:

- Unlimited coding for each reference,
- linking the coding ‘free’ and Motivation with stakeholders,
- creating the possibility that stakeholders can be grouped,
- making stakeholder roles available (based on the generic project stakeholder concept) and
- introducing a numbering system for the subtype pmm-pm of the knowledge areas.

Version two of the case study database finally provided the flexibility in reporting to build the required chain of evidence for a stakeholder or issue.

4.8.2 Coding Handbook

The discussion of the research literature offers the requirements for delivering a holistic view. Based on these requirements appropriate codes were defined; four different coding structures were specified:

Organizational Environment

The maturity of the operating company is described by the three sections of the PFM.

Project Management

These codes are based on the ten knowledge management areas.

Motivation

Based on these codes, the required building blocks can be assessed.

Free Coding

The free coding completes the requirements for a holistic view. For example, the socio-economic environment codes become accessible within this structure and furthermore codes for the description of the stakeholders, project history and project success become

also available. During the process of collecting the evidence, these codes proved to be appropriate for both researched IT projects and thus were not modified. In addition, codes for other projects and issues were created depending on the researched IT projects, which provide the required flexibility for the individual project. These codes, for instance, issues, were defined during the fieldwork. Owing to the great amount of available codes, a coding handbook for each project was created. Appendix C shows the complete set of generic codes deployed in this study. This handbook includes the available codes with short and additionally long descriptions. Furthermore, the free codes for other projects and issues, which were created during the fieldwork, were entered into this handbook. During the fieldwork process the coding handbook was continuously improved to provide efficient support. For example, a last page was added during Project1, which included a table in which the stakeholders were documented. This last page proved to be very helpful especially in the initial phase of the fieldwork when the stakeholders are new to the researcher. This last page included the name, role and contact details of the participants, which can be seen as essential information. The codes and short comments were directly written into the collected documents, ethnographic reports or interviews. Together with the reference number, this information was then entered into the case study database.

Owing to the amount of collected evidence, especially the free and motivational coding process had to be focused. The free coding process had to satisfy the study requirements to provide the necessary details considering individual aspects. In other words, evidence related, for example, to other projects had only to be coded if the information was or seemed to be important for future reference. This knowledge became available after the prolonged observation phase of the researched IT project. Concerning the coding for motivation, the differentiation between what is required to be entered and irrelevant information depends on the selection of the Units of Analysis.

4.8.3 Jottings

The jottings were made using a pencil on a small writing pad in the specific project language. In Project1, most of the meetings were held in English, whereas most of the meetings in Project2 were held in German. Due to the fact that there was no knowledge

of shorthand and the stakeholders did not feel comfortable with a tape recorder, a special code was deployed to avoid wasting time by writing 'standard' observations (Emmerson et al. 1995, Martinsuo 2001). Standard observations are:

- 'M' for the mood of a person,
- 'P' for the participation of a person in a meeting or topic,
- 'D' for the type of dress the person is wearing,
- a square bracket to make observations stand out of the jottings,
- round brackets to add impressions and comments of the researcher and
- 'blah blah blah' to indicate a lengthy discussion, explanation or monologue with irrelevant content.

The abbreviations M, P and D are combined with the observed mood levels. Four mood levels are available:

- A very good mood, strong participation in a discussion and a formal business attire was marked with '+ +',
- an average but still positive mood, average participation in a discussion and a standard outfit was marked '+',
- a person showing signs of a bad mood, low participation in a discussion and an outfit below the expected standard of the group is marked with '-' and
- a negative mood, no participation in a discussion and a rather unusual outfit for the standard of the group is marked with a '- -'.

In addition, it seemed essential that the jottings focus on the content of this study, which provides a basic guideline as follows:

Focus of the Jottings

The objective of the observations is to describe what the project stakeholders talk about and how they behave within the project environment and if they show either support or

resistance towards the project objective. Therefore, any behaviour such as gestures and talk (in general and especially questions) in this respect is important to take notice of and jot down. Consequently, the necessity of jotting down the complete words of a discussion, explanation or monologue is not stressed. Of course, due to the lack of deploying a tape or video recorder, the possibility of jotting down every single observation was thus also not offered. A meeting or a lengthy technical discussion, for example, may become interesting if at least one stakeholder of one Unit of Analysis displays a higher emotional involvement. This higher emotional involvement can be a loud voice, red face or simply silence on the final decision, which was not made by him or her. In this respect, the content of the discussion, the behaviour and talk has to be jotted down. The technical details of this discussion and the reporting of the lengthy process of decision-making are not required. These details may be found in the final meeting minutes – if provided. The final report intends to show that the jottings taking on this focus are sufficient for delivering the required evidence for this study.

During the Day – Informal Behaviour and Talk

During the day, informal behaviour and talk is frequently observed. Depending on the organizational culture, this information can more clearly present the attitude of a stakeholder than that observed during a meeting. Of course, by following the principle of triangulation, the combination of evidence may provide the appropriate justification, but informal behaviour and talk can on the other hand support the researcher in assessing the situation more swiftly and all embracing. These jottings are called ‘during-the-day’.

Owing to the prolonged participation in the project, the researcher becomes gradually a part of the project. Based on this trust relationship the increasing openness of the stakeholders to express their attitude toward a situation can be observed. In other words, the behaviour and talk in offices, on a walk to a meeting, during lunch, or on the way to the office and home is also important to jot down. Depending on the length of observation either an individual report or an entry in a during-the-day monthly summary is possible.

During the Meeting – Observations

Undoubtedly, before and after a meeting, and during breaks, important details can be observed. This informal part of the meeting allows the participants to behave and talk in a way much more free than in the formal meeting. Therefore, the informal part is included in the jottings. The during-the-day jottings do not follow a structure, however during meetings a structure is followed to save time and to improve the quality of the jottings and the final write-up.

The first information to be added is the document type, date and title on the top of the page. To provide an overview and to avoid the repeated writing of names, the table and the chairs in the meeting room are drawn on the front page. With the intention to achieve better observation results, the researcher should choose a seat from which all participants can be overseen. Each chair in the drawing is given a number starting with Chair 1 which is the left-hand chair to the researcher, leaving the highest number for the researcher himself (if this is seen as appropriate for people in the meeting room). The names of the occupants of each chair are also written down. For the following jottings these numbers are written down instead of writing the longer and therefore time-consuming names. Depending on the importance of the informal part before the meeting, the description of the meeting room has to be made later during the observations. Apart from the description of the room, the physical environment is also described - if seen as important for the behaviour of the participants and their conversations.

The abbreviations M, P and D can be made at the beginning of the session and/or during the meeting, because obviously the M and P may change over time. Observations of behaviour, especially of gesture, may be marked in square brackets if this observation should stand out. Quotes are marked with quotation marks.

Impressions and Comments

During the first weeks of making jottings, the importance of writing down one's own impressions and comments was recognised. Round brackets are introduced to separate impressions, feelings, thoughts and comments of the researcher from the actual

observations. Furthermore, the lack of knowledge of the company history and the project environment creates vital questions during the observations. These questions are written down and also written up in the field notes in a separate section called 'questions'. The writing up of the field notes is started parallel to the jotting process and produces the input that jottings should be structured in sections. During the meeting, the agenda or any other topic (if the agenda is not followed such as during the many scope discussions in Project1) is utilised as the title. While making the jottings, a thick line, which could be drawn even at a later point in time, indicates the start of a new section, because of the possible seamless transitions in the meetings. With the help of this method, seemingly endless discussions could be structured easily into logical parts, which truly simplify the writing up, coding and finally the reading process of this study.

4.8.4 Writing up Field Notes

After the first jottings are available, they have to be written up in field notes. The following steps seem to be efficient in delivering an appropriate quality:

- Carrying out the writing up process as soon as possible in order to remember details,
- during the writing up process, the documents which were referred to during the meeting should be integrated as evidence,
- providing a definition of the Unit of Analysis as soon as possible,
- emphasizing the focus on the Unit of Analysis,
- coding the focus on the Unit of Analysis and
- coding has to be entered parallel to the case study database.

4.8.5 Interviews

It appears that an interview with the objective of obtaining sensitive information from a project stakeholder is difficult to lead. Two qualities support the researcher in interviewing project stakeholders²³: firstly, the interviewing experience of the researcher, and secondly, the ethnographic approach. Ethnography as an active participant in an observation process over time can presumably give the researcher the necessary sensitivity to recognise stakeholder behaviour and may eventually establish the necessary trust between the researcher and the stakeholders. From a technical point, the focused interview is hereby deployed, which combines the advantages of an open ended interview with the benefit of focused questions. This focused interview approach is seen as important to give the interviewee the possibility of raising topics, which concern him in this context. These topics may deliver important insight into what the interviewee is thinking in relation to the previously asked question or the researched IT project. Two practical guidelines were followed when preparing the interview questions:

Firstly, the questions are structured as to avoid confusion and repetition of information already given. With this objective in mind, a basic structure of question blocks in the form of an interview template was prepared including:

- Questions about the personal background,
- history of the project,
- questions about participant's tasks and responsibilities and
- current view on the project.

Secondly, the interview template for the individual interviews was finalised by means of these following rules:

²³Similar to the observations, the stakeholders did not feel comfortable with a tape recorder. As a result, no full transcript can be given.

- Creating a positive atmosphere. Therefore, simple questions, which can easily be answered, were asked at the beginning. For this reason questions about the personal background are asked at the beginning of the meeting, because everybody can answer these questions without problem. Based on the personality or background (as observed in ethnography or learned from other suitable interviews), for example, questions about numbers to a controller or about a vision to a visionary personality seem very helpful to create a positive atmosphere.
- Being aware of the key questions and information required. The questions for the stakeholders, which were written down during the observations were added here as well.
- At the end of the session questions should be included with the idea to support the answers given beforehand, especially if no documents are available to provide evidence. These questions may be unpleasant for the interviewee, because he or she cannot answer them or they may prove the interviewee wrong. Therefore, the researcher should offer the interviewee – before asking this kind of questions – that on his or her request these questions can be skipped.
- The interview should not take more than 60 minutes and give enough time for the interviewee to raise his or her own topics. Therefore, the introduction of this research study at the very beginning of an interview was kept extremely brief. If the interviewee was interested in more details about this study, a short presentation was offered.

4.8.6 Collection of Documents

Another challenge is the large number of available documents in medium-sized and large projects. At the beginning of the session, all documents, which are available, are being collected to get an overview. Later on, after the definition of the units of analysis, the coding of the document can justify whether the document requires a reference number and an entry in the case study database.

Documents such as the work results of sub teams or project team stakeholders, which provide evidence related to the Unit of Analysis, are not required to be coded or referenced for a later entry into the case study database. Of course, owing to the researcher's intention to deliver a strong argumentation and to satisfy the requirement for triangulation, the preference is to code and enter collected evidence. As a result, a certain number of references in the case study database are not utilised in the final case study report.

4.8.7 Letter of Introduction including Ethical Consideration

The letter of introduction had to be printed onto the operating company's letterhead and signed by the gatekeeper to make it an official document. The purpose of this letter of introduction is to have a written confirmation of support from the gatekeeper who is representing the operating company. Furthermore, it is assumed that the included ethical consideration would eliminate the project stakeholders' prejudice.

4.9 Conclusion

This Chapter continued examining the premise that the case study strategy is appropriate for the research question of this study. This is due to the limitations of, for example, a survey strategy based on quantitative evidence. Further, a qualitative research paradigm with a multiple embedded case design was selected. The advantage of the multiple embedded case design (Figure 4) is that different units of analysis can be analysed to possibly provide the required insight. In this study four units of analysis will be analysed, providing insight into the behaviour of different units in one project and similar units in different projects.

Ethnography – supported by document analysis and interviews - was identified as the primary source of evidence. Aspects such as the cause of reactive effects were discussed, because they stress the presence of a researcher and the advantage of a long-term integration and also support the relevance of this primary source of evidence for this study. Furthermore, the controversial acceptance of ethnographic evidence was

considered in the quality concept. Moreover, the Research Onion (Figure 5) illustrates the selected research methodology.

Furthermore, the Chapter discusses the constraints on selecting an appropriate IT project, boundaries and their hidden dilemmas such as entry point, ethical considerations and exit point as well as the skills of the researcher.

The last part of this Chapter describes the preparation for the field with the help of a case study database, coding handbook, jottings, writing up field notes, interviews, the collection of documents and a letter of introduction including ethical considerations. Subsequent to the conceptual frameworks, the following four Chapters present the Template Analysis of the collected evidence. The following Table provides an overview of the engaged stakeholders (core participants), the interviews conducted, the meetings observed²⁴ and the documents collected. Based on this collected evidence, Chapters 5 and 7 analyse the Holistic View of the two researched IT projects; Chapters 6 and 8 examine the Motivation of the selected stakeholders.

<u>Collected Evidence</u>	<u>Project1</u>	<u>Project2</u>
People engaged (core participants)	60	24
Interviews	18	8
Meetings (incl. informal)	68	44
Documents	1446	462

Table 1) Overview of the Collected Evidence

²⁴The observations include meetings, lasting from one hour up to several hours, as well as the observations, which were made over a full day.

5 Holistic View of Project1

5.1 Summary

In this Chapter the collected evidence for Project1 is structured by means of analysing the Holistic View. The first part of this Chapter explains how the evidence was collected, coded and prepared for the following Template Analysis later in this Chapter. The collected evidence for the Holistic View in this Chapter (and Chapter 7) was processed in a similar way to one for the Motivation in Chapters 6 and 8. After a short introduction of Project1, the project phases are mapped to the generic project life cycle with the intention of ensuring reproducibility and comparability. Following the conceptual framework Holistic View, this Chapter first describes the project outcome, and second the project environment including the organizational culture, socioeconomic and organizational environment. The last part of this Chapter outlines the applied project management tools and techniques.

5.2 Fieldwork: The Coding Process

The first three Chapters deal with the establishment of the two frameworks Holistic View and Motivation, which were based on this study's academic literature discussion. Chapter 4 outlines the respective requirements as well as the content of these two conceptual frameworks. The objective is to structure the collected evidence according to these two conceptual frameworks, thereby laying the groundwork for a Template Analysis. The results of this Template Analysis are presented in the following Sub-chapters.

The Template Analysis is a prerequisite for the analysis in Chapter 9, which finally discusses the second research question. This approach demonstrates that the analysis in Chapter 9 is based on the evidence collected. Prior to presenting the Template Analysis for Project1 in this Chapter, it is necessary to illustrate how the fieldwork was conducted²⁵.

²⁵The preparation for the fieldwork in Chapter 4.8 elucidates the required prerequisites.

5.2.1 Fieldwork: Collecting Data

While the process of collecting documents certainly does not require any further description, the process of collecting information by means of observation and interview is different because no written document could be collected. However, some written-down documentation was finally required. During a meeting or interview, the researcher made jottings as outlined in the previous Chapter. These jottings are recorded in field notes. After writing down the field notes, the data collected by observation and interview were available as a document. As it applies to the collected documents, the recorded field notes also received a reference number. Appendix D features one field note and one interview as an example.

5.2.2 Fieldwork: Coding Data

Coding data describes the activity of structuring the collected data. Emerson et al. (1995) suggest an open and focused coding, which has been adapted to the requirements of this study.

Process: Open Coding

Based on the outlined research methodology of this study, the open coding was adapted accordingly. The academic literature discussion in Chapters 2 and 3 provides the models for the following Template Analysis. Based on these models the open coding tables have been set up. Appendix C, Table 5, shows the open codes for the organizational environment and Table 6 depicts the open codes for the project management. Table 4, the free coding, contains the open codes for the remaining aspects discussed in Chapters 2 and 3 - such as stakeholders, resistance, organizational culture and project outcome. Furthermore, this Table provides the flexibility to add new, individual themes to the researched project.

The reason why the open coding had to be conducted twice is, firstly, because the available codes were applied and new themes, individually for each project, had to be identified. These new themes were added to the free coding table. Secondly, the open coding had to be repeated to apply these new free codes accordingly.

Tables 8 and 9 present the final free codes for the researched IT projects in this study. Further themes including 'pricing model' and 'frame contract' were identified in Project 1 after the first meetings. Due to the repeated appearance of these individual themes, in both observations and documents, the attention of the observer is drawn to certain stakeholders who repetitively showed a form of resistance. This focus provides the foundation for the selection of the stakeholders for this study. The first Unit of Analysis was selected based on the identified themes of 'pricing model', 'pay stakeholders' and 'business case'. These themes and the underlying resistance of the involved stakeholders indicated already at an early stage that an impact on the project outcome could be expected. Similarly, the identified themes of 'BAFO pricing', 'LoI', 'frame contract', 'DD' and 'restructuring costs' delivered the basis for selecting the stakeholders as enumerated in Unit 2. The involvement of PM and Owner in these processes as well as the identified themes 'assigning project' and '10 per cent promise', provided for this study the foundation for selecting the third Unit of Analysis.

Process: Focused Coding

The focused coding concentrates on the conceptual framework Motivation. Due to the potentially high number of stakeholders in a project, the selection of the stakeholders for the units of analysis is a prerequisite. Consequently, for these stakeholders the focused coding is deployed. Table 7 in Appendix C shows the codes for motivation.

Adding Codes

The codes were attached to the electronically available document, for example, the field notes, by adding a note with the code and a short comment in the text document. This functionality also enjoys the advantage that the note (code) can be linked to the related information in the text. Usually a word processing programme displays the notes on the right side of the page with a thin line leading to the related information in the text. These documents were printed for the data entry in the case study database. For documents, which were available only on paper, the same process was applied, but the notes were written down on the paper and the related information on the page was highlighted. Appendix D shows one example for each data collection method.

5.2.3 Fieldwork: Case Study Database

The screenshot shows the 'Evidence-add' window with a header section and four main data entry panels. The header has fields for 'Type' (set to 'ETH-ALL'), 'Date' (a blacked-out field), and 'Description' (containing 'stc'). Below the header are four panels: 'Coding PFM' (top left), 'Coding PFM' (top right), 'Coding Free' (bottom left), and 'Coding Motivation' (bottom right). Each panel has a list of codes on the left and a description field on the right. The 'Coding PFM' panels have lists with 'Scope Planning', 'Scope Definition', and 'Information Distribution'. The 'Coding Free' panel has a list with '10% promise', 'dump project', 'stake personality', and 'stake appearance'. The 'Coding Motivation' panel has a list with 'Me Purpose', 'Me Tasks', 'Ch Authority', 'Ch Trust', 'Pr Climate', and 'Ch Trust'. Each panel also has a 'Datensatz' (dataset) section at the bottom with navigation controls and a search button.

Figure 6) Case Study Database – Data Entry Screen

In the next step of the coding process the new free codes and selected stakeholders (including their roles) were set up and the coded documents were entered (Figure 6) into the case study database. The Template Analysis was conducted after completion of the case study database, and therefore it was able to run reports (Figure 7), which follow the structure of the conceptual frameworks. In other words, for each element of the conceptual frameworks a report listing the collected evidence is available.

Unit PM - PM, motivation

SEITE 2 VON 17

Reference	Content
Me Purpose	
Me Purpose	FMM-PM
Me Purpose	ETH-ALL
Me Purpose	ETH-ALL
Me Purpose	ETH-ALL
Me Purpose	ETH-ALL
Me Purpose	ETH-ALL
Me Purpose	FMM-STC
Me Purpose	FMM-CMEE
Me Purpose	ETH-ALL
Me Purpose	ETH-ALL
Me Purpose	ETH-ALL
Me Purpose	FMM-CMEE
Me Purpose	FMM-CMEE
Me Purpose	ETH-ALL
Me Purpose	FMM-STC
Me Purpose	FMM-STC
Me Purpose	FMM-STC
Me Tasks	
Me Tasks	PRE-DC
Me Tasks	PRE-DC
Me Tasks	FMM-JF
Me Tasks	FMM-CMEE
Me Tasks	PRE-DC
Me Tasks	FMM-CMEE
Me Tasks	FMM-STAT

Figure 7) Case Study Database – Report for Template Analysis

5.2.4 Fieldwork: Template Analysis

As discussed in Chapter 4, the conceptual frameworks were created based on the academic literature that was discussed in Chapters 2 and 3. Consequently, the criteria for this Template Analysis derive from the academic literature. For this purpose several models have been selected, which were able to present the Holistic View and Motivation. The analysis of the collected evidence for these selected models is the Template Analysis. This Chapter and the following three Chapters present the collected evidence in form of the explained Template Analysis.

5.3 Introduction

Project1 is an outsourcing project with the objective to consolidate 22 SAP data centres in Europe, excluding Germany, into two data centres with the expected effect to contribute 70 per cent²⁶ to the promised gross savings over the following five years. Based on first Due Diligence (DD) during the initiation phase, the following SAP data centres were in scope of the project. From the total of the 22 data centres in scope, only 7 data centres were owned by the operating company. The remaining 16 data centres had been already outsourced to Vendor-Company01.

The operating company is a large corporate group. Beneath the top management board, the central board of directors, this operating company is structured in five areas: operational business, finance and real estate, central departments, central functions as well as the regional units. Each unit contains a number of organizational divisions, which directly belong to one of the members of the central board of directors. These organizational divisions have to be seen as individual companies, with their own board of directors and all required business functions like finance, human resource, administration, sales, development and production. Even if described as individual companies with their own business functions and own company culture, their freedom is limited, because these companies obviously have to comply with corporate strategies. In this construct, the central departments and central functions control not only the financial and legal aspects involved, they also plan, execute and control the corporate wide strategies for the central board of directors. One of the central departments is responsible for the corporate-wide strategy for information technology, the Corporate Information Office (local CIO²⁷) that executed the observed Project1.

Project1 is structured by the logical sequence of the required tasks. These tasks are defined by their output, which is mapped to the output of the project life cycle phases. Taking this approach, Project1 can be viewed utilizing the generic project life cycle,

²⁶Owing to an agreement with the operating company, no financial figures are publicised, except for the numbers, which have already been available in public newspapers.

²⁷The abbreviation of the Corporate Information Office is 'CIO', which is also the abbreviation for Chief Information Officer. Within the observed IT project both abbreviations are utilised without any differentiation. To avoid confusion, the Corporate Information Office is abbreviated as 'local CIO'.

which allows a later comparison with other projects. Figure 6 depicts the mapping of Project1 against the generic project life cycle:

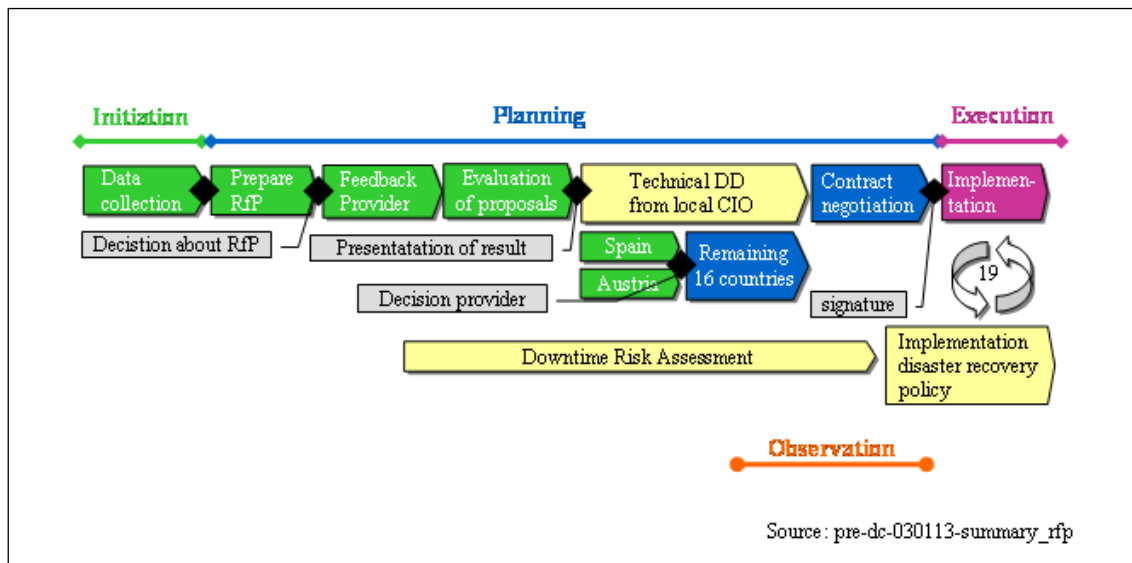


Figure 8) Project Life Cycle of Project1

5.4 The IT Project Outcome

Following Shenhar et al.'s (2001) argument that one size does not fit all in regards to measuring the project outcome, a project distinction is required to provide the possibility to compare the project outcome of different projects.

5.4.1 Project Distinction

The project objective is a consolidation of 22 SAP data centres in 19 countries into two or three data centres, with the focus on SAP data centres and other applications later on. PMtech and Vendor01 explained that these types of projects are usual nowadays. To verify this argument an interview with a large and independent SAP system integrator was arranged. This SAP system integrator confirmed this statement and provided some references to similar projects. Therefore, Project1 was assessed as a low-tech project. Following the Multidimensional Strategic Concept (Shenhar et al. 2001) for low-tech projects, the focus on the success dimension lies within the project efficiency and the impact on the customer. In particular, these two success dimensions cover the traditional

systems of measuring project success, namely meeting the scheduled goal, the budget goal, the technical specification and functional performance. The effects on the customer, in this case the expected savings, have to be assessed after completion of the project. Shenhar et al. (2001) argue that these success dimensions can be assessed in a short time frame after project completion.

5.4.2 Meeting Schedule Objective

The first traditional way to gauge project success is measuring if the schedule objective was met. The following Table presents how the dates, which were submitted after the project initiation and due to which the go-ahead for the project execution was granted, changed over time:

Project DC Schedule	Project Objective	Modified Plan in				
	September -01*1)	November -01*2)	March*3)	May*4)	July*5)	December*6)
Project Initiation finished	31.09.-01	24.09.-01	24.09.-01	24.09.-01	24.09.-01	24.09.-01
Project Planning Phase finished	30.04.	31.05.	30.06.	30.09.	15.12.	tbd
Project Execution Phase finished	30.07.+01	30.08.+01*2)	30.08.+01	31.03.+02*5)	31.03.+02	tbd
Project Handing-Over Phase finished	not planned	not planned	not planned	not planned	not planned	not planned

Sources:
 *1) pre-dc-020920-consolidation_concept
 *2) doc-proc-021106-rfp_v1B
 *3) pre-dc-030320-dd_phase_decision_provider
 *4) pre-dc-030527-eb_council_dc
 *5) pmm-pm-030718-2_charter_council_update_info_mail
 *6) pmm-stc-031216-stc_slides_final

Table 2) Schedule of Project1

All the project life cycle phases are defined by milestones, which can be tracked depending on the deliverables behind them. For Project1 the following deliverables were defined by the milestones ending the individual project life cycle phases:

The project initiation of Project1 contained the feasibility concept and the go-ahead for the overall project. By 24th September this acceptance, the ‘green light’ for the project, was granted and the next phase started. The milestone ‘frame contract signature’ was the final deliverable for the project planning phase. Originally, 30th April was the projected due date, which was continuously postponed to May, June, September and finally December. During the STC meeting in December, the lack of signatures became

public knowledge and the decision was made to re-schedule the project again. This is the reason why the last column in Table 2 does not contain a delivery date for neither the planning nor the execution phase. In other words, by the end of the observation phase, the projected date for a signed frame contract was already delayed by 7 months and the project had to be planned again. Finally, the frame contract was officially signed on 30th June +02. This version of the frame contract did not contain a complete list of all required service levels. Even though this lack could possibly justify a discussion of whether this milestone was actually achieved, the pure delay of the signature by over 24 months seems sufficient evidence for this study to draw a hypothetical conclusion.

The project execution phase included the operational execution of the outsourcing contract. In this phase, the new prices for the defined services should have been given to the operating company and thus the savings gained. Initially, the project execution was planned to be finished within 15 months, from 1st May to 30th July +01. Interestingly, during the phase of postponing the delivery date for the frame contract, this duration was slightly altered, but finally 15 months were accepted again. Due to the required new planning phase in December, no final date could be provided for its project life cycle phase. Besides this, a project handover phase was not planned.

5.4.3 Meeting Budget Objective

Owing to the set condition of the operating company that no internal financial information could be presented publicly, the budget figure can also not be provided. Nevertheless, thanks to the involved stakeholders and the additional time they had spent on Project, a sufficient illustration of how the budget objective was finally met can be offered. By simply counting the stakeholders who were involved in the project planning phase from May until December and applying a standard rate, a budget overrun of approximately € 7 million is conservatively estimated.

Besides the internal resources which were booked on the project cost centre, this figure also includes resources which were not internally booked but were actively involved such as the top management of the central board of directors, the local CIO as well as the country representatives and country participation stakeholders. Moreover, the

external resources of Vendor-Company02 were also considered after being brought into the project by Owner and Initiator. Whereas Vendor-Company02 is an external company, Vendor-Company01 belongs to the operating company. Independent of this relationship between Vendor-Company01 and the operating company, the contract form of this outsourcing contract is a fix-price type. As a result, the local CIO did not have to pay for the resources supplied from Vendor-Company01, including Vendor01 and Vendor02. In reference to the other two arguments that (1) Vendor-Company01 has to charge his customers for their time to survive in the market²⁸ and (2) Vendor-Company01 is 100 per cent owned by the operating company²⁹, these figures are not included in this conservative estimate, as they would support adding the cost of these resources to the budget overrun.

5.4.4 Meeting Technical and Functional Objectives

In terms of meeting the technical and functional objective, Project1 can easily be measured by the expected Return of Investment (RoI). The RoI are the savings which can be claimed after the project objective completion - in this case the signature of the frame contract was achieved. However, owing to the contractual details these savings should have been gained already during the project execution phase. Based on the operating company's condition that no internal financial information can be presented publicly, the RoI figure cannot be provided. This regulation excluded figures which are already available in the press, as in the case of the numbers Initiator, the head of local CIO, who predicted during an interview with a weekly newspaper that in total he will save €800 million for the operating company within the following three years. Accepting the information in the RfP that this programme was the main contributor for Initiator to gain the promised savings, a conservative calculation of the impact can finally be made. Assuming that the SAVING programme contributes conservatively 20 per cent to the promised savings, the SAVING programme has to generate €160 million in savings over the following three years.

²⁸A further discussion about the methods – direct or indirect – i.e. how a vendor can charge higher costs even within a fix price contract type is not required for this study.

²⁹From the point of view of the central board of directors the additional investment in resources of the Vendor-Company01 may influence the overall company profit and therefore has to be considered.

Following the line of argument that the SAVING programme can only generate savings when Project1 is completed, the delay of two years decreases the contribution to only one year. For the purpose of delivering a broader understanding of this matter, a linear contribution to the savings is assumed which reduces the contribution to 1/3. In other words, optimistically, the Initiator could receive savings from the SAVING programme amounting to €53 million instead of €160 million. This equals a reduced RoI of €107 million for two years. A further impact on the RoI due to a signed frame contract based on an incomplete list of service level agreements is not calculated even if the possibility factually exists.

5.4.5 The Impact on the IT Project Outcome

Due to the delayed signature of the frame contract, the budget overrun and the decreased RoI, several severe impacts were observed:

Organizational Impact

The organizational impact on the reliability of local CIO and the operational feasibility of the complete SAVING programme could not entirely be justified. As a direct result, in December, the central board of directors moved the authority of one application management centre from local CIO to CF. Thanks to this decision CF gained the authority over two out of three application management centres. In other words, local CIO lost its authority over layer two – project AM – to CF. Project1 was at this point in time the only remaining project in the SAVING programme under the authority of local CIO.

In December's STC meeting was also decided that a new pricing model had to be developed, which, for being the main part in this frame contract, not only imposed the time-consuming development of a new pricing model, it also enforced a new negotiation round. In an interview in November +01 with Vendor02, it was made clear that after the time-consuming setup of the new pricing model another five months were scheduled to be invested into negotiations. Eventually, a basic frame contract was signed, which however did not include all services.

In June +01 a public newspaper reported that a new programme was initiated. Within this new programme the switch to a service level organised IT structure was planned. In detail, this new programme contained four service towers: desktop, network, voice and data centres. As a result of this announcement, the incomplete Project1 was integrated as one service tower into the new programme and the SAVING programme cancelled.

Financial Impact

The financial impact in the form of the additionally required project budget and the missed RoI is self-evident, and the increased level of attention and escalation up to the central board of directors comes to no surprise. In the calculations that were designed to meet the budget objective, the resources of Vendor-Company01 were not included. As argued earlier, there are two supporting arguments for adding the costs of the vanished resources of Vendor-Company01 to the budget overrun. This was not done in this study, but these two arguments certainly lead to an escalation up to the central board of directors, which was evidently originated in Vendor-Company01. Finally, the central board of directors did not gain the expected savings from the SAVING programme with regards to Project1. Owing to the delay by 24 months, only – in the most favourable case – €53 million instead of the estimated €160 million were contributed to the promised savings of Initiator. Furthermore, internal costs increased by €7 million, which of course have to be covered by local CIO, and adding the internal cost for the stakeholders of Vendor-Company01.

Human Impact

When hiring the Vendor-Company02 in October, PM lost his position and was now the leader for commercial issues in charge of the ‘business cases’ and ‘SLA/contract development’ as well as participating in the team for ‘frame contract negotiations’. Within this structure, PM was no longer the responsible project manager, yet still leading two out of five work streams and being involved in a third work stream. The remaining two work streams were lead by PMtech, with whom PM had a good and friendly relationship. Due to this connection, PM was still holding a certain powerful and interesting position in the project. With the launch of the project outcome in December, a re-organization was initiated, in which PM was still the commercial lead, but the new org chart actually showed seven work streams and more supporting project

management functions. In this chart, PM was in charge of only the work stream ‘commercial’ and contributing as a project member to the team of the work stream ‘negotiations’. Furthermore, PMtech was replaced by resources from Vendor-Company02, which dramatically limited the influence of PM. Finally, PM left local CIO three months later. As published by the press in April +01, Initiator had to leave the operating company by the end of June +01. The newspaper (pmm-pm-7_public_newspaper_initiator) reports that, based on internal information, the reason for his departure is a “clouded relationship with the central board of directors” (p. 9). Particular criticism was stated toward his way of “dealing with the organisational divisions”, his “deficit in implementing measures” and the limited “quarterly financial results” (p. 9).

When comparing this critique with the situation of Project1, the absence of an effective way of dealing with the organizational divisions becomes apparent. The forced set up of a new pricing model³⁰, the failure to implement measures preventing the overall delay of the project and most importantly the limited quarterly financial results make it obvious that it was impossible to deliver what had been promised initially: To reduce costs. Even though Owner, the protégée of Initiator, was integrated into the new programme as well, the limited work contract was not extended in March +02. As a result, Owner had to leave the operating company.

³⁰The Unit of Analysis User describes in Chapter 6 detailed the impact of the new pricing model.

5.5 The Project Environment

In reference to the framework Holistic View, the following Template Analysis seeks to provide insight into the organizational culture, socioeconomic and organizational environment of Project1.

5.5.1 The Organizational Culture

Throughout the project phase two culturally-influenced stakeholder behaviour patterns could be observed, which were employed by all observed stakeholders, however, with a different level of intensity, depending on their role in the project and, of course, their personality. The two culturally influenced behaviour patterns that could be observed are: ‘Scapegoating’ and ‘Meeting Culture’.

Scapegoating

The first organizational value or lived culture is ‘Scapegoating’. This culture within the operating company is built upon of the need to locate a guilty person in the case of project failure – this can be called ‘instrumental Scapegoating’ (Bonazzi 1983, Girard 1986, Daniel 1998). Bonazzi (1983) describes ‘instrumental Scapegoating’:

“Instrumental scapegoats are those individuals who are subject to sanctions through no fault of their own, but as the rational and successful outcome of strategies employed by power holders when they feel at risk of being accused of being responsible for misdemeanours, the blame for which may socially or legally accrue to them. “ (p. 4)

The evidence indicates that this study needs to recognise and examine the resulting behaviour of the project stakeholders. When the involved stakeholders were aware of ‘Scapegoating’, a certain behaviour allegedly with the objective to avert any ‘Scapegoating’ onto oneself was displayed. Naturally, every stakeholder would be extremely interested in averting ‘Scapegoating’ to avoid the resulting punishment. It can be concluded, that in day-to-day project work the awareness of ‘Scapegoating’ among project stakeholders is evidently present, which seems to cause three types of behaviour:

- The behaviour of collecting and preparing evidence to defend one’s own position,

- the behaviour of avoiding responsibility, because another responsible person can easily be selected or
- the behaviour of complying with 'Scapegoating' in the form of pointing to another promising 'scapegoat'.

Awareness of 'Scapegoating'

The awareness of 'Scapegoating' was present throughout observation phase. Starting at the top management, Owner certainly knew his responsibility for the project and was conscious that if he failed he would probably be fired. This pressure seemingly was also recognised by his subordinates including PM, PM03 and ProgMgr.

It was evident that Vendor01 was also aware of the involved 'Scapegoating' as he expressed the need for a guilty party in his interview. PM also knew that her position was endangered and punishment due. For example, during a working session PM said that if they failed they would be 'beaten up' by the management. Similar to everybody else in the project, PMtech also feared 'Scapegoating', and being aware of this danger, PMtech started a discussion about his one day introduction meeting with Vendor-Company01 and the impact on him. It can be assumed that, otherwise, a discussion about the one day meeting and its influence on the overall project plan of this large-scale project would not have been started by PMtech.

Collection and Preparation

As shown above, PMtech started the discussion about the influence of the one day meeting on the project asking for an overall project plan. It would seem that this happened not only because of the awareness of 'Scapegoating', but also due to the fact that PMtech wanted to prepare himself for averting any recriminations. Moreover, Vendor01's feedback, who argued that major re-work was necessary to answer the questions of PMtech at a later stage, proved PMtech right having started this discussion. The collection of evidence and the preparation for a 'Scapegoating' action between Vendor-Company01 and local CIO accompanied the project from the beginning of the delays.

In May, for example, the eight-months delay was presented to an internal council. In this presentation several statements were made which intended to show that local CIO was innocent and could not be made liable for the consequences. The argument process depicted mentions a three-weeks delay due to handover of the project to a new project manager and also the 29-weeks delay due to various requests of the two remaining vendors, the unavailability of other internal departments as well as slow internal decision processing. The arguments found on the above-mentioned slide, which actually had to be represented by the project initiator, project sponsor or project manager, showed no failure on the local CIO's side. Instead, the finger was virtually pointed towards the remaining two vendors of the procurement process and other internal departments.

Later in October, Vendor01 surprisingly presented some slides during a joint project team meeting explaining: "The first 55 days show some delay due to operational issues on both 'sides'". Using the following eight slides, Vendor01 explained the open issues and finally presented the required next steps on the slide: "In order to secure the mid-December target, timely clarification of open issues is essential". The title of this slide indicates already that the listed next step could be deployed as a check list if the milestone in December was not achieved. Of course, the underlying responsibilities of the next steps would show whether local CIO or Vendor-Company01 are made responsible for the possible delay. After the discussion of these slides in the joint project team meeting, they were presented to the STC and later to Initiator. Vendor01 also frequently wrote mails in which he argued - on a technical level - that if certain solutions or information cannot be provided, the dependent milestone would be in danger. Considering all it comes to no surprise that Vendor01 or Vendor-Company01 was never made responsible for delivering these decisions or information.

In November, the pressure was increasing, because the expected December signature became more and more questionable. Therefore, it became obvious that Vendor01 continued preparing for 'Scapegoating'. This time, Vendor01 wanted to get the approved the partial delivery of the DD, for which he actually was responsible. Finally, Vendor01 was successful in getting the approval from PM02 – interestingly, even

without the complete delivery of the DD outcome! The lack of a complete delivery, due to which the DD outcome could have been rejected, was confirmed during an interview with Vendor02 one month later.

Avoid Responsibility

It has been suggested that the concept of avoiding responsibility is based on the assumption that someone can only be made responsible for deliverables he or she was actually responsible for. Of course, on the other hand, a manager needs to accept responsibilities, and - if delivered successfully - with the aim to receive praise and ultimately to advance one's own career. As a result, it can be assumed that only feasible responsibilities, which offer an acceptable level of risk and a lot of exposure, are taken on by a manager. For the stakeholders, this leads to the delicate situation that - with the purpose in mind to advance their career - they cannot reject high risk responsibilities without a good reason. If this good reason is not available, subtle manoeuvring is required in order to avoid these tasks, which as a result makes it relatively difficult to collect evidence for this study. The letter of intent (LoI), for example, was a document Owner never wanted to sign; in fact, only due to increased pressure by Vendor-Company01 the LoI was prepared and signed. Even during the LoI signature-signing meeting Owner suggested to replace his name with Contract01's. This was rejected and Owner had to sign the LoI. Naturally, the question appears why a strong personality like Owner wanted to avoid signing. It would seem that signing a LoI is a common procedure if the final frame contract cannot be signed in the near future. Consequently, this shows clearly the specific interests in the project of both parties involved. Of course, it may also demonstrate the attitude of the responsible stakeholders, who - in the case of failure - could actually be made responsible.

Additionally, virtually the same situation was observed on the next management level below, for example, in the staff meetings of Owner. In fact, in the research interview, Owner complained about this failure that his subordinates do not make constructive decisions.

Compliance with ‘Scapegoating’

It is generally agreed that compliance with ‘Scapegoating’ is the behaviour to appoint another guilty stakeholder or stakeholder group. Implied in the behaviour prior to an expected ‘Scapegoating’ action, the information about a possible guilty stakeholder may be revealed. As seen in the evidence presented, local CIO, for example, prepared a slide for their own defence and pointed towards the two remaining vendors of the procurement process and other internal departments making them overtly responsible for the delay. Later on, the collection and preparation focused blatantly on ‘Scapegoating’ between the stakeholders of the involved departments, for example, Vendor03 pointed on Initiator, Owner on Vendor03 or PM02 on PM. Interestingly, in absence of an immediate ‘Scapegoat’, User02 simply suggested to find another one instantly.

Project Execution

As the project outcome clearly showed, Initiator and Owner had to leave the operating company. It is obvious that they were held responsible for the failure of Project1. Of course, on the other hand, arguments may be found indicating that the motivation behind the observed situation was a ghastly political game, initiated by an individual to gain personal advantage. Indeed, taking a closer look, by recognising the similar behaviour of all involved stakeholders, the possibility had to be taken into account that this behaviour is the natural defence of an individual in order to survive. As a possible filter for this study, ‘Scapegoating’ can be considered as a necessary move of the individual to avoid punishment, a behaviour generated by this culture.

Meeting Culture

The ‘Meeting Culture’ in this observed project requires more attention, because of its observed disruptive behaviour. When considered separately, this disruptive behaviour may deliver evidence for the argument that the observed individual willingly and with a negative intention disrupted a meeting. Due to the prolonged participation, evidence was collected which explain if this behaviour was typical for the meeting culture.

Disruptive Behaviour

It can be assumed that without the prolonged observation process, the following behaviour patterns might have been interpreted as a form of disruptive behaviour - the surprised face, for example, of PM02 during an STC meeting, where he wanted to present one major topic and right at this moment User02 left the meeting for another meeting, illustrates this kind of situation. While the surprised face of an external consultant working in this environment is probably understandable, his behaviour even managed to surprise internal consultants such as PMtech. PMtech, who was actually working in another overseas branch for the same operating company, was seemingly surprised that in one STC meeting, 50 per cent of the STC members left the meeting during a discussion.

More specifically, the stakeholders were late for meetings, left meetings for various reasons (including other meetings) and were moreover working on their laptops during meetings. In reference to the employees of the operating company, including Vendor-Company01, this behaviour appeared internalised. Furthermore, surprisingly, the behaviour of working on various issues during meetings was accepted. The most common behaviour in this category visibly was receiving and answering voice mails, sms-texts as well as emails. For the purpose of receiving and sending emails, the limited number of network cables was passed from laptop to laptop during meetings. The participants of the STC meetings simply asked who else would require a network connection.

Understanding the Behaviour

To examine this internalised behaviour, the meeting culture requires consideration. This may lead to increased understanding of the subject matter.

The length of the STC meetings was between three and six hours. During the meeting no breaks were planned, except during the STC meeting in October which had one break. In case the meeting coincided with lunchtime, a working lunch was arranged.

Furthermore, User01 and User02 complained about the weak preparation for the STC meetings, the unclear leadership situation between PM and Owner³¹ as well as the unclear scope definition for the users in the STC meeting³². As a consequence these factors frequently delayed the already long STC meetings - clearly because of the lack of structure and the repeated discussions. Additionally, the meeting rooms were obviously too small for the number of participants invited, with the effect that the air became sticky and the temperature rose slowly. As a result, the participants naturally became tired after a while and left the meeting to take a break. In the STC meeting in October, for example, four stakeholders left the room together and initiated an unplanned break. This situation demonstrated clearly why the stakeholders frequently left the meeting for a short time – and in some situations even in a small group. This may explain a short period of absence, however the stakeholders also displayed a set of behaviours of disinterest in Project1 by, for instance, leaving the meeting for another meeting or receiving conference calls as well as by working on a different project or even checking and answering calls and emails. This kind of behaviour was observed among all regular STC members including User01, User02, PM and Owner. The reason for this behaviour can possibly be seen in the amount of meetings in this kind of culture. On the basis of the observations of PM and PMtech over a whole day as well as the insight into the meeting calendar of Owner, parallel meetings could not be avoided. To conclude, this may be due to the lack of time. The same situation can be assumed for User01 and User02, especially when considering that these stakeholders were visiting local CIO for this particular meeting and were able to combine this visit with other important meetings at the headquarters of the operating company. In addition to the high number of meetings, their long duration – including the STC meetings – did not seem to leave sufficient time to answer calls and emails from the participant's desks. It appears that owing to this lack of time, calls and emails were answered during the meetings. Again, this behaviour was observed by all regular STC members and accepted as 'normal'.

³¹The Unit of Analysis PM in Chapter 9 explains the situation of PM and Owner in detail.

³²Chapter 9 discusses the scope situation of the users..

After examining the ‘Meeting Culture’ of the operating company, the rationale of the individual for leaving an STC meeting for a short break or even another meeting and/or to answer calls and emails during a meeting becomes seemingly understandable.

5.5.2 The Socioeconomic Environment

It seems that no tasks were initiated to consider the socioeconomic environment of Project01. The view of local CIO was to outsource the remaining seven data centres to Vendor-Company01 and additionally to consolidate in scope all 22 data centres to two data centres. By reason of outsourcing, the legal ownership was expected to switch from the operating company to Vendor-Company01 and the operating company, represented by local CIO, would in effect only buy services from Vendor-Company01. The RfP also mentioned that by acquiring the ownership of the seven data centres, Vendor-Company01 would have to take over the employees as well. As a second step the consolidation of 20 or 22 data centres would be necessary to achieve the required savings. With this approach all issues concerning consolidation, for example, the resulting human resource issues with the local unions in the various countries were moved to Vendor-Company01. Nevertheless, even by shifting some anticipated issues onto Vendor-Company01, a socioeconomic environment analysis was evidently not conducted. Furthermore, this approach may not work, because of the high possibility that the unions and subsidiaries in the various countries would lodge a complaint to the central board of directors, which most likely would pass on these complaints to local CIO.

5.5.3 Template Analysis of the Organizational Environment

The maturity of the operating company’s organizational environment is shown by their level of project execution support, and it can be stated that the organizational environment is composed of three areas: project strategy, project professionalism and project management methodology³³.

Within the area of project strategy, four key success factors are suggested by the PFM. Except for the organizational structure, for which the recommendations were not consequently deployed and therefore only a certain amount of support can be assumed, all three other key success factors do not necessarily support a mature project environment. In the area of project management professionalism, seven key success factors are recommended. From these seven key success factors only one seems to support a mature project environment. It is said that, especially the last recommendation concerning 'honesty and ethics', had a substantially negative impact on the project execution. The substantial influence of the organizational environment on the stakeholders is elucidated in the following three Chapters.

A standard project management methodology is not available within local CIO.

In conclusion, the collected evidence clearly shows that the organizational environment, the maturity of the project environment supporting the project execution, does not support project execution³⁴.

5.6 Template Analysis of the Applied Project Management

By means of presenting evidence on how the project management processes were deployed in Project1, the holistic approach can be seen as completed. As outlined in the Project Management Chapter, the available documents are structured by the enhanced project management methodology in ten knowledge areas. To provide a holistic picture of Project1, this study presents the available documents and information. Furthermore, arguments referring to historical events and their effects - if relevant for the purpose of this study - are being dealt with in the following 3 Chapters, in which the three Units of Analysis are presented.

Initially, PM was in charge of Project1, who noticeably supported this study. As a result, full access to all available documents was granted. However, starting from the

³³The Projectized Functional Management Model by Toney and Powers (1997) is discussed in Chapter 2.3.

³⁴A summary is provided in Table 12, Appendix E.

integration of Vendor-Company02's stakeholders in October and the involvement of PM02³⁵, the collection of documents became increasingly difficult. Yet, access to documents that were distributed to the project team was still possible. Only PM02's documents which were not clearly communicated to the project team or Owner were difficult to access. Difficulties, such as that the recipients of these documents had to be asked for co-operation or that sufficient time had to elapse before these documents became known to the project team, resulted in them becoming less accessible. It is possible that documents existed which never became accessible for the project team. These documents, however, are of limited interest for this study's holistic view, because of the primary and underlying intention of project management documents. It would appear that project management documents are intended to support the project execution. Hence, documents, which are not accessible for the project team, do not support the project team in executing the project and therefore cannot be categorised as project management documents. Despite the availability of documents in most of the project management knowledge areas, none of the project management processes was continuously and consequently deployed and appropriate for a project such as Project01³⁶. The collected evidence shows clearly that documents, tools and processes were available - for example, the general accounting system and budget process. Nevertheless, despite of the availability of an accounting system as well as strict budget approval and reporting processes within the operating company, an appropriate cost management process cannot be identified. Owing to the unavailability of a comprehensible estimate of the resource requirements, the input can be seen as questionable. It is evident that even strict internal processes and a professional accounting system can presumably not improve this questionable input. PM was evidently aware of this situation and judged the quality of the cost management as very weak.

³⁵PM02 is an employee of Vendor-Company02, who initially wanted or was intended to take over the project, but Owner never officially confirmed PM02 in this role as project manager. Despite the overtly bossy behaviour of PM02 and his support of Owner as the acting project manager, PM02 was eventually not the project manager. In this period, from October to November, Owner took over the role of project manager. This was communicated to STC and the org chart updated accordingly. This is the reason why PM02 received this alias - to indicate the change in project leadership.

³⁶Table 13 in Appendix E summarizes how the project management knowledge areas were deployed in Project1.

5.7 Conclusion

Despite its complexity in size, from a technical point of view, Project1 can be defined as a low-tech project. Due to the consolidation of SAP data centres into two data centres and the existence of a few servers only, Project1 shows a common project approach today. Success of low-tech projects is measured by meeting the schedule goal, the budget goal, the technical specifications and functional performance as well as the impact on the customer. This success dimensions can be assessed within a short time frame after completion of the project. By means of measuring these goals at the end of the project planning phase, a dramatic delay could be diagnosed. This delay was not resolved in the following months and Project1 was integrated into the next initiative and the original initiative SAVING vanished. Besides a strong negative financial and organizational impact on the operating company, personal consequences for the responsible managers could be assessed.

This Chapter examines the organizational culture, the socioeconomic environment, the organizational environment and the applied project management processes with the intention of providing a holistic view of Project1. It has become evident that in particular the organizational culture requires filtering of the behaviour, which is enforced by 'Scapegoating' and the 'Meeting Culture'. In reference to the principle of triangulation, this evidence may offer a valuable first insight and a sense of direction, however it clearly has to be combined with other evidence that is not influenced by the organizational culture in order to support drawing an appropriate conclusion. The socioeconomic environment was not considered in Project1. Additionally, it became obvious that the maturity of the operating company when supporting the project execution appears low. Furthermore, paramount honesty and ethics could seemingly not be found in Project1 and ultimately this only contributed negatively to the project execution process.

6 Units of Analysis in Project1

6.1 Summary

This Chapter presents the collected evidence for the three Units of Analysis in Project1. These units were selected based on their respective importance for the final project outcome. The first Unit of Analysis consists of the users, who were expected to utilize the primary project objective in order to reduce their IT expenditures. For this purpose, a new pricing model was introduced with the aim to deliver the projected savings and the flexibility for executing the operational business in the future. The second Unit of Analysis is the Unit Vendor, who was selected for the consolidation of the data centres and the outsourcing concept based on global SLAs. Even though 15 out of 22 data centres belonged to this vendor already, a procurement process was started with four vendors. After the vendor had been selected, the discussions about a LoI started. This Unit attempts to present another perspective on Project1 – the vendor's. Throughout the analysis in the first two Units, two stakeholders are mentioned frequently. These two stakeholders are the project manager and project owner of Project1. Owing to their influence on the first two Units of Analysis, the rationale of their behaviour is naturally of interest for this study.

6.2 Unit of Analysis: User

The users of the final project outcome are the IT service delivery employees of the three HUBs and the IT service delivery employees of the EMEA countries. In total 18 countries with 22 data centres are in scope of this project. The integration of the users should have been achieved by the participation of the management of the users, namely the CEOs of the three HUBs and the CIOs of the EMEA countries. This would have added 18 CIOs to the STC meetings, which was assessed as an overload for an effective decision making board. Therefore, the EMEA countries were grouped into three regions with one representative for each region in the STC. However, one exception was made. Due to their experience and special knowledge in outsourcing deals, two CIOs were invited additionally to participate in the STC meetings. The STC was rounded off with three CEOs of the HUBs. In total, eight managers represented the interest of the users in the STC board.

Two stakeholders from this stakeholder group were selected for assessment in this study on the grounds of their institutional power. These two stakeholders represent over 50 per cent of the users in the involved countries. In other words, these two stakeholders represent the IT support employees in these countries, which are responsible for supporting the business, which generates over 50 per cent of the revenue in EMEA (without Germany). Furthermore, they were selected because of their regular participation in the STC meetings, their active contribution to discussions and their strong informal position among the CIOs'. Finally, their selection is due to the fact that their behaviour profoundly shaped the course of the project, which in turn generated a high level of interest in the reasons for their behaviour.

6.2.1 Resistance of the Unit User

This section presents how User01 and User02 expressed their attitude toward the project.

STC Meeting on 27th August

The STC meeting in August was a videoconference. User01 was on vacation on that day and called in for a limited time. Due to the lack of video conferencing facilities, he was only on a voice call. For User02 this day seemed a regular working day and he was present throughout the conference despite his physical absence.

The atmosphere of the meeting was seemingly good, even though the agenda was apparently not followed precisely and some issues such as the 10 per cent savings and project scope were discussed several times during the meeting. Only the discussion about the moderator of the project status for the next CIO Forum EMEA produced interesting behaviour. After Owner had asked for a volunteer, User01 accepted the task to present the project status at the next CIO Forum EMEA. Immediately after User01 had accepted this task, a discussion followed, during which User01 suddenly claimed that he could not do it. User02 joined the discussion and both argued that they were either too busy or that they could only read the status from the paper, but would not need to know any details. These arguments were dispelled by Owner, who wanted to convince one particular STC member to give this presentation. Finally, Owner was successful in convincing User01 and User02 to present the status of the project together.

STC Meeting on 14th October

The second STC meeting took place on 14th October. Already during the informal part User01 started to criticise the project, which escalated into rejection of the contract renewal for Resource02. User08, who already had described his position concerning the renewal to PM, explained to User01 that he could not see any problem with the renewal of the contract as long as it stayed within the budget. User01 seemed not impressed and still wanted to know more details about the role of Resource02 in the project before the contract was to be renewed.

Apparently, User01 did not remember that Resource02 had presented the SLA and FC status in the STC meeting in August. Later on, during the absence of User01, PM started the discussion on the contract renewal again. In this discussion User04 and User02 joined the position of User08. At this time User01 was still out of the room and was not present when PM announced that they had an agreement. PM wrote down this agreement in the meeting minutes. After User01 had received these meeting minutes, he replied that he did not agree. Regardless of User01's discontent, PM was successful in renewing the contract of Resource02 based on the agreement found in the STC meeting with the other users.

Concerning the renewal of the contract for Resource02, User02 did not act conventionally. Despite this type of behaviour, User02 expressed his negative attitude during another discussion mentioning that he was upset that so far he knew nothing about the FC. Furthermore, User02 expressed his discontentment in the project by claiming that other STC members also were not convinced of this project.

STC Meeting on 5th November

In the following STC meeting, User01 and User02 continued to express their discontentment with the project, which resulted in two sharp disputes with Owner. At first, User01 had a dispute with Owner, which User02 then continued. In detail, they explained that they had never agreed to the underlying figures, did not understand the project approach of local CIO, who did not ask for the operational concept behind the FC, and above all were missing detailed information. In this context, the detailed objectives and the general project approach were discussed as well. The second discussion focused on required approvals of all involved countries, which had not been available so far. In this STC meeting, User01 and User02 repeatedly informed Owner that they had not agreed to the underlying figures in the first BC, and that they were not in agreement with the project process due to the lack of operational concept, and last but not least that they had neither agreed to the SLAs nor the included pricing model. Furthermore, User02 warned Owner several times that without his explicit agreement in form of a signature, no agreement could be made.

As feedback in reference to the meeting minutes of this STC meeting, User02 sent an email to the project team claiming that the pricing model in the BAFO was not sufficient and anyway nothing was agreed upon. Directly after the STC meeting, the interview with User01 was scheduled. In the interview, User01 explained why the numbers were not acceptable and the story behind the pricing model, which was apparently still part of the FC and that the new PM02 would have to solve this issue with all concerned.

STC Meeting on 2nd December

The 2nd December STC meeting proved this prediction right. During this meeting User01 and User02 explained that they would not accept the current BAFO and SLAs referring to the underlying figures and pricing model. The pricing model was scheduled to be discussed after lunch. User05, the task owner, explained by means of a presentation why the currently named user pricing model did not fit the requirements. User05 was then the CEO of the Region2 HUB, which was located in the country where actually User02 was the CIO. As the CIO of this country³⁷, User02 had a higher position than User05 – being the CEO of a new department, which was set up as an independent legal entity. Apart from the superior institutional and political power of User02, he was also the customer of User05. Therefore, the involvement of User02 in the process of preparing these slides and arguments, to present the view of User02, had to be expected. During this presentation, User02 proved this expectation to be true by stressing exactly the same issue again. These meeting minutes listed the concerns of User01 and User02 for the first time. As a result of this meeting, a workshop was set up to discuss the pricing models and other details with the users.

STC Meeting on 16th December

This STC meeting was scheduled one day after the milestone signature of the FC was due, which was though not successfully completed. The agenda and presentation of this meeting focused on the workshop outcome concerning the pricing model, which was planned to be modified as requested by the users.

³⁷This country was the second largest EMEA country measured by its revenue.

User02 was not present at this meeting, however, User01 was, and still, even when attempting to deploy a new pricing model, expressed his discontent toward certain issues, such as the lack of detailed DD outcome analysis.

In reference to the identified six forms of unconventional behaviour by Analoui (1995), it can be assumed that User01 and User02 expressed their non-compliance in the form of non-cooperation. From the beginning of the observation, User01 and User02 had expressed their discontent in various forms. The presented evidence illustrates a selection of non-cooperation situations:

- Trying to avoid presenting the project status to a wider audience,
- rejecting a contract renewal,
- criticising project processes,
- having never agreed to, for instance, the underlying figures for the FC,
- being unwilling to agree to the FC in specific matters and
- insisting on a new pricing model.

Furthermore, they warned Owner that only their signature symbolized their agreement and that no other action could be interpreted as a sign of their compliance.

6.2.2 The Impact on the Project Outcome

As from the initial stage of the field observation, the signature phase of the frame contract was seen as the major milestone in the project. This milestone was also the gateway leading the project planning phase into the project execution phase. The original due date of this milestone was 30th April, which was postponed three times until it was set to 30th September. During June and July this milestone was postponed again, this time to 15th December. The following Table 3 outlines in which way this milestone, which was also the final milestone of the project planning phase, was postponed.

Owing to the lack of a well-balanced project plan, the attention and expectation of the project stakeholders, including the central board of directors, focused solely on this particular date. This milestone ‘sign off FC’ created a lot of pressure on the team from the central board of directors, which became obvious during a meeting on 26th November. The meeting was initiated by PM03 to convince Owner to postpone this milestone again. However, Owner knew that he had to deliver a signature on this date, otherwise he would have had to face personal and professional consequences. This seems the reason is why even a joint request by PM02, PM03, PMmgr and Advisor01 could not persuade Owner to postpone this milestone again. Between August and December, the intensity of non-cooperation of the Unit Users continuously increased and led to escalations, which obviously required additional time to be dealt with. During this period, the DD was executed and, simultaneously, the FC negotiations started, which also caused certain issues, which again required additional time. All in all, the delay of the milestone ‘sign off FC’ until December was not only caused by the non-cooperation of the Unit Users, but by the many issues present in the project at this point in time - such as the lack of final detailed DD outcome, a completed list of SLAs and completed contract negotiations. The Unit User actually only contributed partially to the delay of the signature until 15th December.

Project DC Schedule	Project Objective	Modified Plan in				
	September -01*0)	November -01*1)	March*3)	May*4)	July*6)	December*7)
Project Initiation finished	31.09.-01	24.09.-01	24.09.-01	24.09.-01	24.09.-01	24.09.-01
Project Planning Phase finished	30.04.	31.05.	30.06.	30.09.	15.12.	tbd
Project Execution Phase finished	30.07.+01	30.08.+01*2)	30.08.+01	31.03.+02*5)	31.03.+02	tbd
Project Handing-Over Phase finished	not planned	not planned	not planned	not planned	not planned	not planned
Sources:						
*0) pre-dc-020920-consolidation_concept						
*1) doc-proc-021106-rfp_v1B						
*2) pre-dc-030113-summary_rfp						
*3) pre-dc-030320-dd_phase_decision_provider						
*4) pre-dc-030527-eb_council_dc						
*5) pre-dc-030603-cio_forum_stockholm						
*6) pmm-pm-030718-2_charter_council_update_info_mail						
*7) pmm-stc-031216-stc_slides_final						

Table 3) Project Life Cycle of Project1

On 15th December, the frame contract was still not signed. Contrary to the delays earlier, this delay was undoubtedly a direct result of the non-cooperation of the users. Already at an early stage in the project initiation phase, the users had criticised the user based pricing model. From November onwards this resistance towards the suggested user based pricing model was recognised and actively dealt with. A workshop was initiated to discuss the pricing model, with the result that the suggested user based pricing model was replaced with a consumption based pricing model. Therefore, the FC with the user based pricing model was not signed as planned on 15th December. Consequently, Owner was forced to officially postpone the milestone 'sign off FC' again to integrate the new consumption based pricing model. The final meeting minutes of the STC on 16th December and the slides used for the next STC meeting clearly confirm this decision. Of course, issues such as the lack of the final DD outcome, a completed list of SLAs or completed contract negotiations were still present, however these issues did not force the signature date to get postponed. The possibility to sign an FC without the final DD detailed outcome, a complete list of SLAs and the completed contract negotiations was discussed between Owner and Vendor01, because Vendor01 and Vendor02 suffered the same pressure coming from the central board of directors. The idea was to sign off the FC based on the details of the BAFO, and with the objective to avoid losing the face by postponing the milestone 'sign off FC' even further. The necessary details would have been delivered later on. This solution had already been practised in another project before, as Internal04 reported. The only difference between now and the project before was the interference of the users, who did not agree to the user based pricing model and therefore to the FC. As a consequence, owing to the non-cooperation of the users, it was politically not possible for Owner to deliver a signed FC, which was based on the BAFO. Therefore, the delay of the milestone 'sign off FC' on 15th December was clearly a result of the non-cooperation within this Unit of Analysis. The STC slides of 13th January list the new date for this milestone as to be defined. By 15th March +01 the new consumption based pricing model had arrived at a stage to get presented to a wider audience. Later on that year, the FC was still not signed, the central board of directors decided to set up a new project with a wider scope, wherein Project1 was integrated as one out of four technical areas in one of three sub-projects. The new project manager, responsible for the sub-project

wherein Project1 was integrated into, was briefed on the consumption based pricing model by PMmgr on 26th October +01. Finally, the FC was signed on 30th June +02.

In summary, owing to the resistance of User01 and User02 the project was delayed by another 10 months until the project was integrated into another project. From this point in time on, Project1 and the initiative SAVING did not exist anymore - as was planned and guaranteed. The resistance of the Unit Users profoundly shaped the course of the project. Signs of non-cooperation were present from the beginning of the observations. Starting with the threat that without a signature no agreement could be given, the discontent of the users became obvious. This discontent of not accepting the user based pricing model until 15th December was finally the reason for another delay - a delay that was noticed by the central board of directors. Besides the organizational effect in form of wasting time, affecting the participants psychologically - which moreover also had to participate in the new project - or the financial consequence of wasting a substantial amount of EBIT, even human resource effects were observed: PM and ProgMgr left local CIO for another position within the operating company, Initiator had to leave the cooperation in March +01 and the work contract of Owner was not renewed in June +01 with the effect that he had to leave the cooperation as well.

6.2.3 Template Analysis of the Motivation of Unit User

The construction of explanation follows the Integrative Model with the four intrinsic rewards (Thomas and Tymon 1997). Two of the intrinsic rewards, the sense of meaningfulness and the sense of progress, are gained from the task purpose, however the remaining two intrinsic rewards, the sense of choice and the sense of competence, from the task activity. Each intrinsic reward is defined by five building blocks, which may deliver an explanation, how the stakeholders perceive the intrinsic reward. The following summary provides insight into how the two users perceived the building blocks and Integrative Model why they displayed their specific, individual behaviour. As discussed in the Chapter Motivation, the project manager has to create an environment that allows the project stakeholders to motivate themselves. For this purpose the project manager deploys the tools and techniques deriving from the described ten project management knowledge areas. Due to the limitation of time and

resources as well as the explicit and implicit knowledge of the project manager, these tools and techniques may be deployed in various forms. The result is a unique project environment, which ideally should provide the four intrinsic rewards for all project stakeholders.

The Tables 14 and 15 in Appendix F provide an overview of how User01 and User02 perceived the building blocks. These Tables show that both users perceived the building blocks in a similar way. Despite their similar perception, the way in which User01 and User02 self-expressed their discontent at work appears to be different, presumably depending on their individual personality. The following observations, which apparently contributed to their perception of the building block 'Building a Non-Cynical Climate', indicate their different personalities:

"... Without a clear start, User08 started to criticise the decision making process in the Project. User01 immediately joined to criticise the project and said: "The emotional discussions in this project do not lead anywhere. Only to the result that we will waste another million and, additionally, the people involved will be kept busy instead of working on productive tasks." User01 continued and said with a cynical laugh at the end: "From the standpoint of Initiator this does not matter – whether he will save XX million Euro or only XX million Euro." Furthermore User01 added: "The work for Project1 can become more difficult." Again with a cynical voice, he said: "I am very optimistic about this project and we have never been so far." ..."

(eth-031014-stc, p. 2)

"... The discussion continued until User01 asked: "Where are the documents for this meeting?" PMtech, who knew that User01 asked this per email before, said that they will be delivered. User01 replied cynical: "Now I am relieved because I was diligently looking for them." ..."

(eth-031014-stc, p. 3)

"... User02 asked PM: "Is it true that Vendor-Company01 had agreed to book a 10 per cent discount retroactively and do we have the signature for this?" PM answered:

Tomorrow CIO and Vendor-Company01 will sign the LoI which includes the retroactively booking of 10 per cent." User05 did not know this and asked for details. After excusing himself that he is not the expert in this subject, he criticised the approach. User02 added: "We left the level of seriousness already." User01 in his cynical way said: "Sorry, wanted to be

professional.” User02 and User01 laughed. User02, who asked about details of the 10 per cent promise, now gave away some information: “My view is that Vendor03 said yes and now it is his problem.” (User02 knew more.) The following discussion showed that especially User02 and User01 did not agree to the approach ...”

(eth-031014-stc, p. 6)

“... User03 replied: “That is risky if they have delivered or will.” PM03 added: “We will lose. Last week I have seen that Vendor01 has a paper for everything.” User02 joined the discussion and recommended: “Decide who is guilty and what to do.” ...”

(eth-031202-stc, p. 8)

In contrast to User01, User02 seemed to be in control of his temper. Furthermore, User02 was a Politician who was seemingly more selective about his contributions. Compared to User01, User02 did not contribute colourful remarks to the discussions, and also tended to stifle the positive atmosphere by dry comments or jokes shared with User01 about Project1. The following Template Analysis aims to show how the above-mentioned stakeholders perceived the building blocks based on their individual self-expression. Out of four possible rewards only the sense of meaningfulness is perceived by the users. In other words, the project itself has a meaning for User01 and User02. The positively perceived meaningfulness explains why both users attended the STC meetings frequently and continuously contributed value. Otherwise, without the reward of a sense of meaningfulness, this participation would not have been likely for these two personalities. Both users would have found sufficient reasons not to attend the STC meetings. Even if they were forced by a member of the central board of directors to attend, their contribution of value would probably have been non-existent. Derived from the sense of choice, which was not supported in the project, User01 and User02 had the impression that their contribution of value was not requested. Nevertheless, derived from the meaningfulness of the project for them, they tried as much as possible to contribute - even while lacking all building blocks of the sense of choice. The presented evidence demonstrates that User01 and User02 simply wanted to have the freedom to make intelligent choices. That is why they, for example, continuously asked for more information and also warned Owner and PM to accept their authority - otherwise they would not have given their signature, which was the only and necessary form of agreement from them.

This lack of a sense of choice also contributed to their decision that the user based pricing model was seen as not appropriate and a consumption based pricing model had to be defined. This decision was made with only a limited amount of information available and on an unclear purpose. As discussed above, the self-expression of discontent at work has to be understood as the individual's own rationale for behaviour. In this case, the discontent of User01 and User02 expressed toward December's pricing model was seemingly based on their rationale that they could not accept the suggested pricing model. In their view, the consumption based pricing model was essential for the delivery of future savings as required by the central board of directors in order to provide the flexibility necessary for their operational business. From this point of view, the behaviour of User01 and User02 becomes rather evident and therefore the 'why' in the complete picture for this Unit of Analysis can be seen as answered.

Whereas the sense of choice was lacking in all building blocks, the sense of competence was supported by the building blocks 'Providing Knowledge' and 'Managing Challenge'. The building blocks 'Providing Appreciative Feedback', 'Recognising Skill' and 'Fostering High, Non-Comparative Standards' were apparently not perceived by the stakeholders and, as a result, a sense of competence was not felt by User01 and User02 in Project1. One ingredient, required in project management, is 'Fostering High, Non-Comparative Standards', which is a project plan with an adequate number of milestones that can be traced to measure the progress of the project, and also be utilised to show improvements (PMBOK© 2008). Owing to the lack of an appropriate project plan, the building blocks 'Tracking Milestones', 'Celebrating Progress' and 'Measuring Improvements' were not created in this project. Furthermore, the lack of progress and the organizational culture of 'Scapegoating' contributed that a collaborative climate was not fostered. In a nutshell, a sense of progress could thus not be felt by the stakeholders. It appears that the collected evidence in form of the observed behaviour, collected documents and interviews deliver the symptoms for this picture. Together with the presented resistance, a human-centred philosophy serving as an underlying cause explanation may be able to provide a logical and complete picture of the situation. With this comprehensive picture the rationale of User01 and User02's behaviour becomes transparent. Owing to feeling of a sense of meaningfulness, their active participation

could be explained. The feeling of a sense of choice, competence and progress was missing, which seems to explain their rationale for criticising Project1 in various parts - and finally escalating into the rejection of the user based pricing model.

6.2.4 Discussion

In this Sub-chapter, the stakeholder group users were identified to have an important impact on the project success of Project1. Referring to the introduced project risk research studies, several studies (Remenyi and Sherwood-Smith 1999, Jiang et al. 2000, Jiang and Klein 2001, Riggle 2001) include either the view of this stakeholder group or recommendations, which focus on this particular stakeholder group. Assuming the applicability³⁸ of these studies for the unit User in Project1, these recommendations could support the solution of the underlying cause - as discussed in the previous Chapter.

Riggle (2001), referring to the 'Chaos Report' from the Standish Group, argues that "at the heart of the communication problem is the fact that business users understand their business at the business process level while data warehouse developers mostly understand it in terms of data structures. Obviously, a solution must address this dual view." (p. 41). In his view, communication - in other words the way how information is exchanged - has to be improved. This appears to be based on the assumption that a requirements failure is present which can both be (a) user-centred or (b) developer-centred. It would seem that the Project1 users knew the global objective and would have appreciated the project outcome. However, the project approach remained unclear due to the lack of providing information, and not because of the lack of understanding. In fact, User01 and User02 had a strong technical understanding and the lack of information had been clearly communicated. A developer-centred misunderstanding between the business stakeholder, represented by the users, and the developers, represented by local CIO, was seemingly also not the case. It can be assumed that local

³⁸All the listed project risk research studies focus on information system (IS) projects or information technology (IT) projects but in each and every case they do so with a different technical focus e.g. software development, data warehousing, data centre consolidation by means of server consolidation.

CIO intentionally did not provide detailed information. In other words, in Project1, a communication problem did not exist. In other words, the project users apparently did not know what had to be produced and moreover did not understand the business requirements. The findings support the writer's view that even communication in the form of providing information and a clear purpose would not have changed the users' perception in Project1 in regards to the four intrinsic rewards. Of course, the building blocks - providing a clear purpose and additional information - would have certainly contributed to the process of making more informed choices, however, the remaining three building blocks - necessary for having the freedom to make choices - would still be lacking. As a result, even if Riggle's (2001) recommendation that users should have a detailed technical understanding had been put into practise, the negatively perceived three intrinsic rewards would most likely not have changed.

Jiang and Klein (2001) discovered that the most frequently used application to avoid risk is to "obtain users'/managers' participation and commitments and to institutionalize system use" (p. 8). Based on this finding they conclude that "risks involving the technical and budgetary aspects of the project are controlled via an early job of selling, participation, and commitment mixed with training and ongoing support" (p. 8). In view of this, the question arises whether the escalation of, for instance, the pricing model could have been avoided in Project1 by merely following these recommendations. The users actually perceived a sense of meaningfulness, and it seems that a project-selling job would not have contributed to solving this situation. Furthermore, the fact has to be considered that the users that participated in Project1 appeared on a regular basis in the STC meetings and showed their commitment by contributing their opinion. This commitment to Project1 was over time replaced with critique on various issues, which finally resulted in the rejection of the suggested pricing model. Accordingly, no more than a change in the attitude toward commitment of the users in Project1 could be identified. These findings are evidently supported by Jiang and Klein's (2001) recommendation that a commitment had to be maintained. Despite this general recommendation, in this field study, the suggested mix of activities such as training and

Nevertheless, the involved stakeholders are seen as typical because these stakeholders would also participate (with their respective behaviour) in different technical IT projects.

ongoing support evidently could not improve User01 and User02's sense of choice, competence or progress. In conclusion, Jiang and Klein's (2001) recommendations may improve the overall situation of the operating company, however seem rather limited and therefore may not be able to prevent the user related escalation as experienced in Project1.

In Jiang et al.'s (2000) study, 66 per cent of the surveys were completed by "important IS positions - project leaders, IS managers, or IS executives" (p. 5), and concluding - quite similar to Remenyi and Sherwood-Smith's (1999) the findings - that a consensus between various stakeholders has to be found in order to find an agreement. Among these various stakeholders are most certainly also the users of a project. In contrast to the study mentioned above, the recommendations here include clear tasks such as updating and involving, maintaining contact to ensure compliance, participation in evaluation and decision making. Of course, all these tasks are of help when trying to find a consensus between the various stakeholders and thus supporting a successful project execution. Taking into consideration this general recommendation to find a consensus between the various users, this would have meant to execute all recommended tasks and thus to satisfy the articulated as well as the non-articulated needs of the users. This may, for instance, include installing a proper project management system, providing extensive information, discussing all open issues and increasing participation in the decision making process. From a theoretical point of view, if all the recommendations were executed correctly, they would have presumably improved the perception of the intrinsic rewards. However, it is evident that the limitation of Project1's resources does not allow the execution of all suggested tasks. Consequently, the recommendations proved to be far too numerous as well as general to solve the underlying cause – the problem – that seems to affect the unit User.

The study's central hypothesis is, that to strive toward answering the research question 'why IT projects fail', all aspects of the problem have to be assessed. In view of this, with the help of the Comprehensive Problem-solving Picture (Figure 1) evidence for the underlying cause explanation needs to be collected to provide recommendations that may improve the IT project situation. It can be assumed that by looking through the lens

of motivation an underlying cause explanation can be found, which may provide a better understanding of this complex situation. The discussion of the unit User in this Chapter indicates that this better understanding may contribute to the current project risk research debate, as it seems to provide an answer the second research question of this study (as presented in Chapter 1).

6.3 Unit of Analysis: Vendor

In comparison to the Unit Vendor, the Unit User presents the view of the direct stakeholders, which are expected to utilize the project outcome. The selected two stakeholders User01 and User02 were attending STC meetings, a decision board, but did allegedly not contribute actively to Project1. Active work in this context means executing operational tasks for Project1, which may contribute to achieving the project objective. During the analysis of the Unit User, evidence was obtained showing clearly that both users complained that the STC was a decision-making board and not a workshop. This appears to be the reason why User01 and User02 sent representatives to the workshop pricing model, who took over the operational tasks. In view of this, the Unit Vendor intends to provide insight into to what extent the behaviour of the two contribution stakeholders may have influenced Project1. Vendor-Company01 was selected after the procurement process. The interest of the vendor is supposed to close the deal with the operating company, however the project has also to be executed focusing on the goal of generating the expected profit. Although ultimately no contract was signed with Vendor-Company01, all other competitors were dismissed and the decision taken was solely communicated within the operating company.

The two main representatives of Vendor-Company01 are Vendor01 and Vendor02. Surprisingly, even though more than 50 resources work on Vendor-Company01's Project1, only a few of them were frequently presenting at and joining in meetings. For example, PMtech-Vendor01 occasionally participated in both the 'jour-fixe' and the technical meetings for the DD, but s/he did not join the contractual meetings during which details of the FC or SLAs were discussed. Vendor01 and Vendor02 were selected for this Unit's assessment for various reasons. Firstly, for their external view on Project1 – Vendor01 and Vendor02 were not working for local CIO. Secondly, for their

participation in the 'jour-fixe' and other meetings, which offered sufficient time for field observation. Thirdly and finally, their behaviour profoundly shaped the course of the project, which in turn generated a high level of interest in the reasons for their behaviour.

6.3.1 Resistance of the Unit Vendor

From Vendor-Company01's perspective, Project1 was indeed a very important project. Firstly, Project1 covered major European countries and thus Vendor-Company01 expected that a world-wide rollout was to follow. This assumption was actually realistic and Vendor-Company01 was eventually asked to work on a world-wide solution. In addition, Vendor-Company01 was asked within this following initiative to create a complete IT outsourcing solution for the operating company - not only SAP data centres. Secondly, this project had presumably a high visibility in the market in respect to other global players and, in general, a successful project execution is expected to have a valuable marketing effect for other large corporate groups which may have also plans to outsource their IT section. Thirdly and finally, Vendor-Company01 obviously did not want to lose this major client, because the majority of data centres involved were already operated by Vendor-Company01. Hence, losing the operating company as client, would have meant endangering the future of these data centres. As a result, the representatives of Vendor-Company01 including Vendor01, a senior experienced key account manager, and Vendor02, the head of the contract department of Vendor-Company01, were asked to successfully close the contract and to execute the project.

Except for the specific behaviour patterns occurring within the organizational culture - which were described in Chapter 5 - no obvious manifestation of discontent toward work procedures could be observed, neither in the STC nor during the JF meetings. Of course, their situation as vendors who wanted to sell, did not allow strong manifestations of discontent in presence of their key clients. Furthermore, considering that Vendor-Company01 was owned by the operating company and therefore the central board of directors presumably would employ finger-pointing in the case of project failure, any measure had to be taken to avoid such reactions.

Nevertheless, it can be suggested that even when trying to conceal the feeling of discontent below the surface, a discontent, if present, would result in a behaviour patterns, which can be observed and evaluated academically. This behaviour may not be a visible self-expression such as observed with User01 and User02 - who were actually verbally fighting to be right - however, certain conclusive actions can be executed in the background. Regardless of the type of self-expression, the expression of discontent at work is bound to have a deep effect on a project. Therefore, in order to achieve a greater insight into these dynamics, the evaluation of Vendor01 and Vendor02's behaviour has to be examined in consideration of the observed effects on the outcome of Project1.

Letter of Intent (LoI)

On 30th April, the operating company selected Vendor-Company01 as the vendor for Project1. As a consequence of this decision, the remaining vendor, Vendor-Company06, was dismissed, and the operating company communicated this decision via the standard boards to the national CIOs. Despite this message, Vendor02, the head of the contract department of Vendor-Company01, wanted to sign a LoI with local CIO. During the interview with Owner, Owner explained why he did not want to sign a LoI and, even if he had to sign a LoI, why this was not legally binding from his perspective. Nevertheless, even Owner, seemingly a strong personality who was supported by Initiator, was apparently forced to provide a signed LoI against his will. Owner's approach to this was to proceed with the preparation of the LoI template and to give PM and ProgMgr the strict order not to accept any changes. On 5th August, after the JF meeting, this LoI template was discussed by Vendor02, PM, ProgMgr and Contract02. In this meeting, Vendor02 apparently gave the impression that he felt offended by Owner's LoI template - Vendor02's feeling of disappointment is clearly reflected in the extensive feedback to the LoI.

Subsequently, Vendor02 arranged a top management meeting with Owner and Vendor03 with the objective to modify the LoI template including various essential aspects. This meeting was held on 8th September. In this meeting Vendor03, the manager of Vendor02, made it clear that the CentralDirector01 had clearly different expectations and was also his mentor. After the meeting Owner was willing to agree to the modification of the LoI template. It is obvious that mentioning the relationship

between Vendor03 and CentralDirector01, who had become the new manager of Initiator, was very helpful. The integration of the modifications was managed between Vendor02 and PM following this meeting. Interestingly, the willingness of Owner to cooperate improved even more after a meeting with CentralDirector01. This meeting was also arranged by Vendor02 via Vendor03, who had informed CentralDirector01 about the LoI situation. As a result, CentralDirector01 requested a meeting with Owner and Initiator on 23rd September, which presumably contributed to the changed attitude of Owner to accept a negotiated LoI.

Finally, the modified LoI was scheduled to be signed in a meeting on 15th October. Of course, Vendor03 was invited to this meeting as well. The day before this signature-signing meeting Owner again expressed his discontent with the situation, and even when signing the LoI Owner expressed his discontent by asking to replace his name on the LoI. Regardless of the question whether the need for a LoI was justified or not, Owner did obviously not want a LoI. Therefore, a LoI was originally not part of the project. Vendor02, on the other hand, clearly wanted a LoI. After 6 months, Vendor02 was actually successful in signing a negotiated LoI. For this purpose Vendor02 initiated certain actions in the background, such as the involvement of Vendor03 and CentralDirector01, who finally forced Owner to sign a negotiated LoI. Only due to Vendor02's resistance, in form of non-cooperation, time and effort had to be invested to sign a negotiated LoI. In other words, Vendor02 self-expressed his discontent about the lack of a LoI by means of initiating corresponding activities in the background.

Restructuring Costs

By definition, the restructuring costs include all expenses necessary to change from the current organizational structure to a service-oriented structure, for example, the over-all project expenses and the cost of shutting down the data centres. These restructuring costs were requested to be quoted separately from the service prices. It was clear that Vendor-Company01 would comply and thus the restructuring costs were listed separately from the prices per service as requested. During the interview Owner explained that everybody would have to cover their own costs; Owner addressed clearly Vendor-Company01. Owner argued that this was acceptable because everybody belonged to the same company. Therefore, the local CIO's presentations did not include

the Vendor-Company01's restructuring costs, which would have probably decreased the RoI. The restructuring costs were frequently discussed during the JF meetings, including in the JF on 3rd August, where PM told Vendor01 that everybody had to cover their own cost. In the meeting minutes this information was noted: "Costs for Due Diligence: Each organization will cover its own costs." (pmm-jf-030819-jf_mm, p. 1). Interestingly, neither during the meeting nor after receiving the meeting minutes, a disagreement was communicated by a representative of Vendor-Company01. This situation did not change until the very last JF, the one before the LoI had to be signed. So far, the issue had been raised frequently and thus the importance of the restructuring costs for Vendor-Company01 becomes obvious. In fact, in the JF meeting after the signing of the LoI, Vendor02 explained that Initiator agreed that local CIO would take over the restructuring costs for the data centres, which are owned by the operating company. Compared to the overall restructuring costs, which included the overall costs for the project including the DD as well as the restructuring cost for the remaining data centres, this seemed obviously a small contribution from local CIO. This contribution to the restructuring costs was actually the result of a discussion between Vendor03 and Initiator, prior to the meeting when the LoI was signed. Apart from this exception, the LoI defines that "each party shall bear its own – internal and external – costs connected with the negotiations and the other measures (e. g. Due Diligence) as mentioned in Clause 1.1 above." (doc-cont-030912-loi_v10, p. 3). The project continued without any further discussion about the restructuring costs. This changed suddenly at the end of a meeting when the conditions for the final frame contract were discussed. Vendor02 informed PM and Contract02 that he would raise this issue with the central board of directors. One month later the field observations ended and therefore, one year later, a second interview with Vendor02 was arranged, where Vendor02 elucidated the outcome of this process. Vendor02 explained that finally only the restructuring costs were not decided upon open and this issue had escalated up to the central board of directors. The decision of the central board of directors was to terminate Project1 and instead to integrate the data centre consolidation into another project. Another discussion with Owner confirmed this story and Project1 was in actual fact integrated into a new, larger initiative as a sub-project.

Despite Vendor-Company01's signature on the 'forced' LoI, which included a regulation for the restructuring costs, this issue was apparently never solved. Even though having come to an official agreement, Vendor02 expressed his discontent by discussing the restructuring costs again and finally escalating this issue up to the central board of directors. Obviously, Vendor02 was again supported by Vendor03, who finally was in the position to raise this issue up to higher management level. Owing to the resistance of Vendor02, the signed agreement in the LoI was modified in favour of Vendor-Company01.

Political Resistance

Vendor03 was the manager of Vendor02 and did not actively participate in Project1. The participants of the JF meetings did not have the necessary authority to negotiate and sign a LoI. PM and ProgMgr were only acting on behalf of Owner. Therefore, Vendor02 had to find a way to schedule a meeting that Owner may actually attend, and therefore Vendor02 also invited Vendor03. Vendor03 held a key managerial position, which made the meeting important and, as a result, Owner agreed to attend this high-level LoI meeting. When signing the LoI, Vendor03 asked questions, which made it clear, that he did not know the content of the LoI. Therefore, prior to the LoI signing, Vendor02 explained several details to him presumably in order to prepare Vendor03 for this meeting. Furthermore, the occurrences in year +01, which Vendor02 reported in the second interview, lead to the conclusion that Vendor02 had an active part in this process. Vendor02 provided the necessary information and most likely also suggested the required next steps to Vendor03. In other words, Vendor02 was self-expressing his discontent by initiating certain actions in the background. The actions themselves - such as the internal communication between Vendor02 and Vendor03 prior to the high-level LoI meeting - were not observed, but the high-level LoI meeting was attended and evaluated by the researcher. Based on the fact that Vendor03 apparently had been informed by Vendor02 about the details of Project1, the particular attitude of Vendor03 certainly allows drawing a conclusion about the attitude of Vendor02 towards Project1. During the aforementioned high-level LoI meeting, Vendor03 told everybody what he thought about the project. In his view only 50 per cent of the projected savings could be achieved, which seemed still considerable. As a consequence, even Vendor02 seemingly did not believe in the project objectives to save a certain amount of costs for

the operating company anymore, which he confirmed in the second interview. In reference to these observations and the organizational ‘finger-pointing’ culture, the anticipation that Vendor02 most likely would have initiated more such tasks in the background to protect himself and his colleagues against the imminent blaming actions - in case Project1 would not deliver - seems quite realistic.

All in all, it is evident that non-cooperation as a result of Vendor02’s self-expression of discontent created resistance, which finally escalated this issue up to the central board of directors.

Due Diligence (DD)

The DD is divided into two parts. The first DD included two countries. Based on this information Vendor-Company01 and Vendor-Company06 should have been able to finalise their BAFO. Shortly before the decision, this DD was completed. The second DD started afterwards. In short, the objective was to deliver all technical information necessary to negotiate and sign the FC.

Vendor-Company01 estimated three months to complete the second DD in the BAFO. By the end of April, Vendor-Compan01 had been selected as the vendor for Project1 and the time line had been adjusted accordingly as the project status reports from 9th May shows. In this project status, the second DD was planned to be executed between June and August, and after the required preparations in May. Followed by the FC negotiation in September, the milestone ‘sign-off FC’ was due on 30th September. The responsibility and the task of a complete project execution of the second DD was upon Vendor-Company01. Owing to missing preconditions, the DD was delayed - as the JF meeting minutes from 15th July report. On 29th July, the DD country kick off meeting started the DD officially. Vendor-Company01 provided a DD project timeline soon after on 5th August. In this timeline the rough dates for the two visits per country are listed, but detailed tasks and responsibilities were clearly missing. A second draft of this document with further or updated details was not delivered. Instead, a different layout was presented later on - a simple slide showing four working teams and their planned first visits. In this report, the first country visits had already quietly been postponed by several days.

Regardless of PMtech-Vendor's promise that the DD would be completed by 30th September as well as the availability of a DD team of 89 team members, nothing happened until the DD evaluation was due. In the JF meeting on 10th October, Vendor01 was not able to present the DD outcomes. Instead Vendor01 presented some slides, which explained the first delay of 55 days by "*operational issues on both sides*" (*eth-031010-jour_fixe*). By taking on this approach, Vendor01 presumably intended to avoid the expected 'finger-pointing' and was able to lead the discussion into another direction. Despite the fact that no DD evaluation was ever presented, Vendor01 promised that this delay would not influence the 'sign-off FC' milestone on 15th December. The updated DD schedule showed a completion of the data acceptance visits on 5th November and a delivery of the DD outcome already on 3rd November – two days earlier. During the meeting on 3rd November, Vendor01 provided the status for the DD, which in his opinion looked promising. The participants from local CIO did not share this view, because the expected complete DD outcome were not delivered on that day as scheduled. In the following weeks the DD situation was intensively discussed. During the STC meeting on 2nd December, the DD was presented as "partly available" and was announced to be completed by 3rd December (*pmm-stc-031202-stc_slides_final*, p. 8). The DD status in the following STC meeting on 16th December was presented for being only "partly available", so the completion date was postponed until 17th December. On this slide one new column had been added, which claimed the partly available DD outcome as sufficient to continue with the FC negotiations.

In contrast to the three incidents of resistance as described above, no evidence could be found which could support the argument that the delay of the DD was caused by the resistance of either Vendor01 or Vendor02. It certainly has to be taken into consideration that the delivery of the DD outcome depended on 89 team members of Vendor-Company01, who might have delayed the completion of the DD due to their resistance. These findings denote a first significant limitation to this study, which is discussed in more detail in the final Chapter 10.

6.3.2 The Impact on the Project Outcome

Despite the incomplete delivery of the DD outcome, the negotiations started on 3rd November. Furthermore, the idea to sign a formal FC in which the DD outcome were to be integrated at a later point in time was already discussed in the same menu point for the unit User. Irrespective of the reason why the DD outcome had been postponed, it was evident that the delay of the DD outcome had wasted a great amount of time and already-limited resources of local CIO. The preparation and completion of the LoI between 30th April and 15th October required additional time and effort, especially from PM's and local CIO Owner's side, which could have been easily invested into executing project management tasks for Project1. Notably, this issue can be seen parallel to the repeated discussions of the restructuring costs.

Apart from Project1's key players' time-wasting processes, Vendor01's and Vendor02's behaviour seemed to have dramatically shaped the CentralDirector01's attitude. Due to his political power, CentralDirector01 was the project sponsor. When assuming this role in October, it became obvious that CentralDirector01 was formally and informally influenced by his protégé Vendor03. Vendor03 in turn received his information mainly from Vendor02, his subordinate. As mentioned before, Vendor02 and Vendor03 did not believe Project1 was to deliver the projected savings. This expectation had been transported directly from Vendor03 to his mentor CentralDirector01, who, as a result, was preoccupied with Owner and Project1. From the point of view of CentralDirector01, this situation became worse following January +01, when a new pricing model had to be developed and at the same time the restructuring costs had escalated up to the central board of directors. The mistrust in Project1 increased and thus the decision to integrate Project1 into another new initiative seemed understandable as an attempt to finally deliver what was promised initially. As expected within this type of organizational culture, the 'finger-pointing' process started subsequently. From the CentralDirector01's perspective, the guilty person must have been Initiator and his protégé Owner. Initiator and Owner had promised to deliver substantial savings and were not able to even manage the first steps in Project1. Consequently, Initiator and Owner had to leave the operating company in year +01.

The four examples discussed above provide an insight into how Vendor01 and Vendor02 operated in Project1 and why Owner did not trust Vendor-Company01 from the beginning of the project. The following Unit of Analysis intends to provide insight into Owner's behaviour, which may have been influenced by these occurrences. In short, Vendor01 and Vendor02 profoundly influenced Project1- even just in the background. This influence had evidently a direct impact on the project outcome. Firstly, valuable time of the already-limited local CIO resources had to be invested to deal with the issues of Vendor-Company01. This time could have been invested instead into executing project management functions. Secondly, due to their goal to protect themselves and Vendor-Company01, Vendor01 and Vendor02 supported Owner in his lack of trust in Vendor-Company01 - trust which Vendor01 and Vendor02 would have likely preferred to receive in Project1 (Chapter 6.4 aims to deliver the evidence for this statement). Finally, Initiator and Owner's actions contributed considerably to CentralDirector01's decision to discharge them. In other words, Vendor01 and Vendor02 were successful in protecting their own positions by blaming other 'scapegoats'.

6.3.3 Template Analysis of the Motivation of Unit Vendor

Reminiscent of the first Template Analysis in this Chapter, the two stakeholders of the Unit Vendor were able to perceive the building blocks in a similar way, despite their different personalities. The following extracts indicate the sales-orientated behaviour of Vendor01. Vendor01 displayed seemingly confidence in the project and appeared to be always prepared with documents, which could prove his statements. Even in November, Vendor01 expressed his confidence toward achieving the milestone in December:

"... The following discussion dealt with the scope of the project and the deliverables of the DD. During this discussion Vendor01 presented prove in form of meeting minutes. Nobody else from Vendor-Company02 or local CIO was prepared in a similar way.

In this discussion Vendor01 said: "I still believe in a signature of the frame contract until 15th December." Contract02 did not share this confidence and said: "I do not believe that they will sign a price. Instead we will get a large escalation." ..."

(eth-031103-jour_fixe, p. 3)

In contrast to Vendor01, Vendor02 may have stifled the excitement by direct cynical remarks about the rapidly changing staffing situation, for example:

“... It was Vendor02 (and not as I would have expected Vendor01) who said: “Ok we will provide you these information but not to everybody. Please give us one contact.” Vendor02 answered: “We have the feeling that this information has not been distributed [within local CIO] as needed.” PMtech quickly suggested: “Send me the documents.”

Vendor02 in a cynical way answered not with a yes, instead he said: “Even for the next six weeks?” PMtech replied: “Of course.” (Vendor02 clearly indicated that the number of project manager and other changes is far too high – and too fast.) ...”

(eth-031103-jour_fixe_dd_results, p. 3)

“... Vendor02 started: “Owner said he will join today...” and added ironically: “How many [external] consultants you [local CIO] are presenting today?” Resource01 and PM were joining the comments from Vendor02 in a relaxed and funny way. In this small talk Vendor02 continued: “At least you [Resource01] are from the operating company.” The three continued to talk about the different participants of the meeting and their affiliation to the operating company.

(I got the impression that Vendor02 did not like so many external consultants in the project. Even when he was joking he continued to push this topic.) ...”

(eth-031127-contract_nego, p. 1)

It can be assumed that, in their role as vendors, Vendor01 and Vendor02 did not attempt to stifle the excitement owing to their own interest in signing a LoI as well as the FC at a later stage. However, the collected evidence and the situations as presented in Chapters 4 and 5 indicate that both stakeholders perceived the building block ‘Building a Non-Cynical Climate’ as non-contributing to an intrinsically rewarding environment.

The following Template Analysis aims to illustrate how these two stakeholders perceived the building blocks based on their individual self-expression (Table 14 and 15 in Appendix F). Owing to the importance of Project1 for their employer as well as the identified passion and adequate tasks, Vendor01 and Vendor02 participated and contributed actively to Project1. In other words, Project1 was worth Vendor01’s and Vendor02’s time and energy, as both expressed the feeling that Project1 mattered to

them. Whereas the sense of meaningfulness was clearly perceived, the intrinsic reward based on a sense of choice was not perceived by Vendor01 and Vendor02. Despite the accepted authority of both vendors, the decision-making process was limited due to the lack of the intrinsic rewards of the building blocks ‘Demonstrating Trust’ and ‘Providing Security’. As a consequence, Vendor01 and Vendor02 did obviously not feel free in their decisions. In addition, Vendor01 and Vendor02 were not able to make informed choices due to the missing last two building blocks referring to a sense of choice. However, the organizational culture of ‘Scapegoating’ and the fear of punishment create apparently a need for security. Thus, owing to the inability to make appropriate decisions, Vendor01 and Vendor02 had to find an alternative way to execute appropriate tasks to protect themselves. In their view, a signed LoI seemed to provide a certain amount of security - in form of a document containing a signed scope, other important details as well as a statement of the responsibilities of both parties. It appears that especially the responsibilities of both parties were important for the expected ‘Scapegoating’ actions. The requirement of a signed LoI was ignored by Owner initially. Therefore, Vendor01 and Vendor02 had to find a solution. As explained in Chapter 3.2.3, ‘resistance’ in this Unit, Vendor02 initiated the LoI process by informing his manager, Vendor03, who had good, informal connections with Director-Central01, who interestingly was also the manager of Initiator. In view of this hierarchy, Vendor02 was obviously able to initiate a LoI process, which Owner had to comply with. The first draft of the LoI, which was prepared by local CIO, evidently confirmed the suspicion of Vendor02 that protection against local CIO was required. Again, by deploying the same approach, Vendor02 was successful in forcing Initiator and Owner into the negotiation and signing of the LoI – yet, against the will of Owner. From an overall project perspective, the LoI was not a part of the original project process and therefore not a project objective. Motivation in a project had been defined as to strive willingly toward group objectives. Initially, the LoI could definitely not be seen as group objective and was forced upon the team by Vendor01 and Vendor02. These results suggest that this type of behaviour can be classified as resistance in form of non-cooperation. On the other hand, resistance viewed from the perspective of a human-centred philosophy defines the individual’s rationale as his self-expression of discontent (at work).

In other words, the human-centred philosophy seems to answer the question why Vendor01 and Vendor02 displayed this form of resistance. From their point of view the LoI was required to achieve security that Vendor-Company01 receives this outsourcing contract. Furthermore, Vendor02 added details, such as the detailed scope, restructuring costs as well as the responsibilities of the involved parties, which are undoubtedly all important when trying to protect Vendor-Company01 against the expected 'finger pointing' actions.

The second form of resistance can be discovered in the issue of restructuring costs. Although Vendor01 and Vendor02 addressed this issue frequently, either did they not receive an answer or the answer was not satisfying. The decision from the central board of directors that everybody had to cover their own costs for Project1, including the transformation process, was not satisfying - due to the size of Project1 the restructuring costs would have had a substantial impact on the profit of Vendor-Company01. From a business point of view, Vendor-Company01 had to generate profit; otherwise a form of punishment would have to be expected.

Due to the meaningfulness of Project1 and the lack of choice, the issue restructuring costs was in fact addressed, but Vendor01 and Vendor02 did not have the freedom of choice. In other words, Vendor01 and Vendor02 had to continue complying with the rules set by local CIO (Vendor03 admitted this in one meeting with Owner) as not to endanger the FC. Of course, this issue was kept quiet until a signed LoI was achieved and the trouble about the DD delivery was finally solved. Afterwards, yet before the FC would be signed, this issue had been escalated up to the central board of directors again. This escalation again delayed the milestone 'sign-off FC' for Project1. Evaluating this escalation from the viewpoint of a human-centred philosophy, Vendor01's and Vendor02's behaviour could be explained as a self-expression of their own rationale. The feeling of discontent in Project1 evidently was created by the pressure that Vendor-Company01 had to generate a profit with Project1 - otherwise a form of punishment was expected. Furthermore, the lack of a sense of choice forced these two vendors to choose the described approach, which finally produced the desired outcome.

Vendor01 and Vendor02 did also not perceived the intrinsic rewards from a sense of competence and a sense of progress. Although the building blocks ‘Providing Knowledge’ and ‘Managing Challenge’ may support a sense of competence, and the building block ‘Providing Access to Customers’ might support the sense of progress, the overall accomplishment reward created by these two senses was evidently not felt by these two vendors. It can be assumed that this lack contributed to Vendor01’s and Vendor02’s expectation that Project1 may not deliver the anticipated outcome, which increased the fear of failure and thus the need for security. In short, Vendor01 and Vendor2 felt solely the intrinsic reward of the sense of meaningfulness. However, the intrinsic rewards of a sense of choice, competence and progress were not perceived. In other words, the intrinsic rewards from the task activities, which are based on the sense of choice and sense of competence, were not provided. Furthermore, the accomplishment rewards, which are based on the sense of competence and sense of progress, were also not provided. These missing rewards, referring to activities and accomplishment, must have created for Vendor01 and Vendor02 a strong need to protect themselves against the expected ‘Scapegoating’. Based on this expectation, the LoI process had been initiated. In addition to the LoI process, Vendor03 admitted that he had informed Director-Central01 in September that in his opinion the project objectives could not be achieved. In his view, only 50 per cent of the savings could be realized, which would be in his opinion still a considerable value. In view of this alert, Vendor03 informed Director-Central01 that Vendor-Company01 knew that local CIO’s ideas, namely the Initiator’s, were not considered feasible, and therefore a scapegoat was selected. In December, Owner and Initiator had to report that a FC was not signed yet and in year +01 the restructuring costs had escalated. At that stage, the delay of Project1 could not be overseen anymore and the organizational culture required the identification of a ‘guilty’ person, who had to be punished for this failure of not delivering a signed FC. Director-Central01 had the information that (a) Project1 would not achieve the savings Initiator had projected, which was the opinion of his protégé Vendor03, (b) Initiator and Owner were not able to get a FC signed even after a long delay from March to December, and (c) the signed LoI was neither complete nor accepted concerning the restructuring costs. Furthermore, a certain trust relationship

similar to the one between mentor and pupil had to be assumed, which finally led to the decision of making Initiator and Owner redundant.

6.3.4 Discussion

This Unit of Analysis seeks to demonstrate that stakeholders' background activities, which usually cannot be observed directly, yet can be determined indirectly by the effect they create - as the discussion of their impact on Project1 clearly shows. These findings allow the conclusion that self-expressive manifestations of discontent impact the work-place considerably. It is important to point out that this study's findings were derived from a purely qualitative approach, as pre-assumed factors would only have limited the researcher. The research design of this study, which follows Herzberg's (1982) line of thought, seems to provide the scope for a fresh approach without pre-assumptions. In the context of this Unit of Analysis, Vendor01's and Vendor02's discontent could be identified presumably thanks to the researcher's perspective of a neutral observer within the company environment. It can be suggested that any other research design would have most likely not been able to distinguish this kind of behaviour and its impact on Project1. Analoui's (1995) critique on behaviour related research stating that "popular survey methods such as questionnaires and structured interviews, would yield meaningless data" (p. 50), clearly supports this argument. Yet, most of research outlined in Chapter 1 is based on a quantitative survey research strategy (e.g. Jiang and Klein 2000 and 2001, Riggle 2001, Hartman and Ashrafi 2002, Jiang et al. 2002b). However, the following discussion explains why a survey strategy built on primarily quantitative evidence cannot fulfil the requirements for the exploration of a complex phenomenon such as stakeholder motivation impact in this study.

Answering a Questionnaire

Firstly, it is questionable whether the project stakeholders would have answered a questionnaire about their attitude to work projects at all. It can be assumed that especially questions related to work environment issues such as resistance toward an objective, the dislike of other people, the personal judgement of situations and their own feelings towards a situation would probably not be answered authentically.

In fact, Helm and Remington (2005), who conducted a study based on in-depth interviews in the project management environment, report that only few project sponsors were willing to participate in interviews. Of course, these interviews had taken a completely different focus, but, nevertheless, this clearly shows the universal challenge of data collection, in particular when upper and top management are involved – and Vendor01 and Vendor02 obviously belonged to the upper management of Vendor-Company01.

In addition, there is the issue of anonymity, as questionnaires could not have been anonymous due to the fact that the different stakeholder groups had to be identified to provide the required holistic view. Again, this contributes further to the question whether all project stakeholders would have answered the questionnaire anyway. Furthermore, legal constraints such as the data protection law³⁹ for non-anonymous surveys could possibly have prohibited the conduction of a survey in such as specific project environment.

Yet, ultimately, even if legalities were not an obstacle and moreover the stakeholders would be willing to participate, the issue of authenticity remains. An individual's actions, motivation and feelings can change over time, can no longer be recalled or the individual may be unaware of his or her own behaviour and therefore could not describe his or her emotions adequately. In other words, depending on the point of time of the survey, Vendor01 and Vendor02 might not have recalled all details to answer the questions correctly.

Understanding of Questions – the Language Barrier

Secondly, even though this study is focused on the IT area of Western countries where English is used widely to communicate jargon, a specific and accurate lexis to understand and answer personal questions about motivation cannot be expected from each individual. These language barriers would limit the understanding between observation participants and this may finally lead to a different individual interpretation of the questions asked. The general problem of the research becomes obvious hereby.

³⁹In Germany this data protection law is called 'Bundesdatenschutzgesetz'.

Another example of language barriers in a project environment are translations - if the researcher is not fluent in all required languages the content of communication can be misunderstood by the involved participants and this could again lead to misinterpretations.

Number of Questions

Thirdly, to provide the required holistic view of the researched IT project, all stakeholders, the project environment and the IT project have to be considered. In addition, ongoing changes and unknown situations that constantly alter the already complex project process have to be taken into account, and thus it seems obvious that a 'one size fits all' questionnaire is not feasible. There are too many situations that seem important to be considered when intending to take a holistic project view, and only some of them can be anticipated beforehand by the researcher. Additionally, even if the researcher would manage to foresee one of these possible situations, the stakeholder's individual perspective of this particular situation would be too complex to be covered by only one questionnaire - for instance in the occurrence of 'Scapegoating'. The aspect of the size of the questionnaire can also be viewed from another angle, from the theoretical models involved. In this study, a modified project management methodology were deployed to cover the field of project management and the Integrative Model were deployed in order to cover the field of motivation as well as the PFM to cover the organizational environment respectively. The project management methodology includes 41 processes, which are classified in ten project management knowledge areas. Within an organizational environment, the PFM Model includes three aspects with 5 key success factors for aspect number one, 7 key success factors for aspect number two and 1 for the number three - as explained in the Chapter Project Management. The Integrative Model includes four intrinsic rewards with a total of 20 building blocks. A simple approach would be to imagine that one question per point has to be asked. This would lead to 74 ($41 + 5 + 7 + 1 + 20$) questions. In addition, the various pre-assumed situations would have to be integrated in order to deliver the required holistic view, and the number of situations has to be multiplied by the 74 questions. It becomes evident that this process would eventually produce an extensive questionnaire, which would take far too much time for the respondents to complete.

Evaluation of Questionnaires

Next, the aspect of the final evaluation of the evidence collected has to be taken into account. In general, mathematical and statistical methods are utilised to deliver numbers and graphs; depending on the available IT technology the complete survey process could be conducted with the use of an IT-based questionnaire, for example by utilizing the latest Web (Java and http) technology. The respondent could answer the questionnaire online and the resulting numbers and graphs could be calculated automatically. It would seem that for a limited number of questions and for a specific situation this approach may be appropriate. Yet, when trying to provide a foundation for further research (to find a new direction), it can be deduced that the number of variables known and unknown would be far too high to be integrated into a calculation - and thus a purely quantitative method seems after all not suitable.

Upfront Limitations and Pre-Assumed Situations

The final and most important point is that, in order to find an underlying causal explanation in this complex environment, pre-existing restraints in the form of pre-assumed situations should be avoided as they may limit the researcher's holistic view. On this basis, it seems interesting to mention that most project management success surveys are in fact based on restrictions and pre-assumed situations – as discussed in Chapter 1. Given this, it may be inferred that this offers an explanation for Turner and Müller's (2005) findings that "the literature on project success factors, surprisingly, is very quiet about the role of the project manager and his or her leadership style or competence" (p. 49).

6.4 Unit of Analysis: PM

The responsible project manager, PM, worked full-time on Project1 and was reporting directly to Owner, while ProgMgr was in charge of Owner coordinating the two SAVING initiative projects, which in turn Owner was responsible for. ProgMgr and PM were sharing an office and seemed on good terms. Both expressed their interest in this study, however, the project manager of the second project, another suitable candidate, did not show a lot of interest. Therefore, Project1 was selected for this study.

Initiator strongly believed that the feasibility of ideas regarding the projects had to be evaluated in a strategic department within the local CIO organization. When the 'green light' was eventually given, the project was handed over to another department responsible for the execution. Yet, precise instructions on the handover process were not made available. Subsequently, Initiator, the mentor of Owner, transferred Project1 in November -01 to Owner. However, Owner, who had previously criticised Project1, was not able to convince PM-01 to continue with the project execution. Nevertheless, owing to ProgMgr's perseverance, Owner in February appointed PM as project manager for Project1 and thus PM became the responsible project manager for Project1 between February and October. During the changeover period from PM to PM03, Owner officially took over the project manager role supported by PM02 in October and November. PM02, who actually never was officially appointed as the project manager, was executing the operational tasks on behalf of Owner. Therefore, PM02 was assigned as project manager for the short time of his presence. Finally, PM03 took over the project at the end of November.

6.4.1 Resistance of Unit PM in Project1

PM's and ProgMgr's blocking of goal attainment in the form of frustration became evident during the participant observations. Already on 13th August, during an off-site work session of both PM and ProgMgr, PM's level of frustration could easily be observed. During a discussion about the general project approach, ProgMgr suggested that perhaps another internal department could convince Owner to adapt their project approach. Seemingly eager to expound, ProgMgr started telling the researcher the

background story, yet after only a few sentences ProgMgr encouraged PM to continue telling the complete story and left the room. In her story PM explained that she had prepared a project plan, but was let down by Owner. By the end of her story her emotions had become too strong and she could not hold back her tears before leaving the room. ProgMgr saw her leaving the meeting room and came back in. Some minutes later, PM, who appeared to have slightly recovered from her intense emotions, also came back into the off-site meeting room, and - after some concluding words - we continued swiftly with the original topic. This observation already indicated the emotional situation between PM and Owner.

Project Management

The document, which PM and the project team had prepared, divided Project1 into five technical sub-projects plus one sub-project for the project steering process. Furthermore, PM defined 20 work packages in total and assigned these tasks to the available resources. In detail, PM planned to take over the economic project lead (sub-project project steering) as well as the lead of the sub-project economics. In addition, PM planned to take over four work packages. User03 was intended to take over the technical project lead and the lead of four sub-projects. Furthermore, four work packages were assigned to User03 as well. The remaining work packages were assigned to Vendor-Company01 or other resources. ProgMgr, who was officially no resource in Project1, was assigned three work packages. Interestingly, only the project office function was never assigned. The last version of this document contained a top level description for each work package, a schedule for each work package, a project org chart and a role definition for the sub-project leader and team members. After User03 was in May rejected as technical project manager, this resource was not replaced until PMtech arrived in September. Furthermore, the contract of one specific external consultant, who was assigned one of the various work packages, expired, however a replacement for this consultant - as well as for the other external consultants who had already left - was never provided. In other words, considering the staffing situation in May, PM had to take over five sub-projects including the overall project lead as well as nine out of twenty work packages. Furthermore, no assistance for the project office job was made available, and also the question whether ProgMgr would have been in a position to execute the three work packages assigned to him cannot be answered clearly.

This situation was unchanged in August and did not change until the end of October when seemingly all of a sudden, in panic mode, Initiator and Owner hired ten consultants of Vendor-Company02. As a result, Project1 was not sufficiently staffed at least between June and September, which was also recognised by User02 in an STC meeting in September. Despite User02's criticism, also the meeting minutes of the first STC meeting in June, where the project plan was rejected, provide deeper insight into the human resource process. The STC was apparently fully aware that at least "a project controller has to be staffed" and stating the "STC will decide about following procedure (further assignments of consultants) and new contracts will be decided by the STC starting from today" (pmm-stc-030626-stc_mm_final, p. 3). It can be concluded that PM was apparently not in a position to make any human resource decision. Only after the approval of Owner and the STC, who met only once a month, further steps could be taken. Between June and September, PM repeatedly reported the human resource situation, but seemingly sufficient resources were not provided. Owner explained this situation to the researcher in his interview complaining that, in his view, the external consultants did not make valuable contributions and that was the reason why he did not extend these particular contracts. Owner indeed had recognized the human resource situation and explained that he had addressed this issue previously, but Initiator had never given any constructive feedback or commitment. It has to be pointed out that in this interview Initiator was not able to present any details or documents of Project1, which could have clarified this situation. However, at the end of September, Initiator became the new manager and with the arrival of Director-Central0, Initiator unexpectedly utilized ten resources from Vendor-Company02 to support Project1; Owner suggested and organised these resources. Furthermore, in November, Owner also managed to bring PM03 on board, however PM was not involved at all in these processes.

On this basis, it can be concluded that, owing to firstly the lack of human resources and the resulting work load for PM, secondly the wrong presentation of BAFO details, next the lack of appropriately preparing the STC video conference and lastly the difficulty of deploying an appropriate project management methodology, the stakeholders' behaviour cannot be interpreted as resistance. PM's behaviour does clearly not fulfil the

criteria of destructive practice (sabotage) based on inaction. To classify behaviour in such way, a predictable destruction coming from a deliberate inaction has to occur, which is evidently not the case in Project1.

PM and Owner

From the beginning of the field observation, the relationship between PM and Owner was visibly tense. This and Owner's temper lead PM to avoid meetings and direct confrontations with Owner. Therefore, PM obviously preferred writing emails to Owner instead of a personal discussion and thus found ways to avoid confrontations - a good example of this is asking ProgMgr to present her issue in a meeting with Owner. Another possibility for PM to avoid confrontations with Owner was by simply not speaking. Finally, PM tried to completely avoid Owner's presence - even at lunch. Usually, it could be observed that Owner's subordinates went to lunch together. Owner joined this ritual occasionally, however rather frequently PM found a valid excuse not to join them.

Despite the tense work relationship between them, PM could obviously not avoid all meetings with Owner and had moreover to report the project status and other related issues to him. From this point of view, a form of co-operation was actually installed, because PM overtly was providing information to Owner. Given this, it can be deduced that a destructive practice (sabotage) based on inaction, such as not providing important information, was not performed in Project1. Further evidence may demonstrate that Owner, on the other hand, was not too keen on working closely with PM and easily became upset in discussions with PM. For example, Owner did not invite PM to present her project in international meetings. In the STC meeting on 27th August, Owner asked the STC members for a volunteer explaining that PM provided the slides for this presentation, but would not attend. Furthermore, Owner clearly stated in his interview that he did not find PM capable of managing a project. It seems apparent that solely due to ProgMgr's increasing pressure, Owner agreed to accept PM as manager for Project1. On the other hand, both PM and Owner participated in the STC meetings and PM was actually invited by Owner for other meetings related to Project1. From this point of view, a form of co-operation was still in place even when Owner was selective in inviting PM and overtly did not find her capable of managing Project1. Yet, all in all,

little resistance from Owner toward PM was actually present throughout the project phase.

To sum up, even though no resistance in the form of a destructive pattern was observed in Project1, an evaluation according to the Cognitive Dissonance Model definitely predicts a considerable impact. Both stakeholders self-expressed their frustration by adopting a specific behaviour. PM self-expressed her frustration in resignation whereas Owner self-expressed his frustration in aggression against PM. As a result, in view of their respective blocked motives, a manifestation of self-expressed discontent at work with a clear impact on the project success can be expected.

Assigning the Project/Project Manager

As a consequence of the rejection of the presented project approach in the STC meeting on 26th June, the responsibility for human resources was also withdrawn from PM. Furthermore, PM's authority was limited to preparing the slides for international meetings without actually being invited to present her project. Another good example is the LoI: The LoI template was provided by Owner with the order attached that no line may be changed (see Chapter 6.3.1). PM realized in this situation that she had not been assigned responsibilities and therefore wanted to leave local CIO. During the work session on 13th August ProgMgr told me that he would support her. From this point onward, ProgMgr's and PM's intention to leave local CIO was known to all project members. In August, the process of looking for a technical project manager was still ongoing and PM and ProgMgr were in charge of preparing the information for a decision - a decision which was to be made by Owner. In a break, during the interviews with two candidates on 20th August, the idea was raised to assign the technical project manager the task of executing Project1. In particular, PM and ProgMgr wanted to sell a technical project manager role to the candidates, but in fact they wanted to hand over the complete project lead. For this purpose, PM and ProgMgr wanted to find a suitable candidate who would be accepted by Owner. One day later, both candidates were presented to Owner. After the interviews, PM, Owner and ProgMgr discussed the two candidates, and, even though the intention to handover the project to PMtech was not discussed directly, Owner totally supported the idea. As a result, Owner introduced the candidates as potential project managers for Project1 in the STC meeting. Although the

technical role was emphasised during the interviews, Owner announced in the STC meeting that one candidate will take over the overall project manager position. After his vacation, the selected PMtech started at the end of September. The project status of 8th October included an org chart, which presented PMtech as the overall project manager and PM as sub-project manager for the business cases. Referring to this org chart, PMtech tried to clarify this misunderstanding in an internal mail on 9th October. In the following STC meeting on 14th October, this misunderstanding was solved and PMtech received the technical project manager role. After these occurrences Owner did not reinstate PM as project manager. Instead Owner took over the project manager role supported by PM02 - until PM03 came on board. This move seemingly ensured that Owner was managing Project1 with the resources from Vendor-Company02. In addition, Owner added a new management level in November, where PM was reporting to PMmgr. It is evident that by means of these measures, Owner had successfully avoided any further direct contact with PM. Even when this plan eventually failed, PM was finally successful in leaving local CIO at the end of April +01, and with the help of Vendor01, PM took over a position with Vendor-Company01. Resistance can be defined as an unconventional behaviour (see Chapter 3.2.3) to express non-compliance toward shared organizational values. In this sense, the project objective is the shared value. PM and Owner did seemingly not express a non-compliance to this shared value. Even though non-compliance to shared values could not be observed, both stakeholders clearly self-expressed their discontent in the work place. PM expressed her frustration in the form of resignation – leaving local CIO – as this step seemed necessary for PM to re-gain a positive attitude.

Altogether, although the experienced managerial control and PM's lack of autonomy could indicate sabotage, it rather seems that PM did not deliberately add harm to Project1. Owner, on the other hand, self-expressed his frustration in the form of aggression. Due to his institutional power, Owner was able to re-gain his positive attitude by changing the role of PM and the reporting structure in his department. As a result of this, Owner also could reduce direct contact with PM to a minimum.

6.4.2 The Impact on the Project Outcome

Although, by definition, no resistance in the form of non-compliance toward shared organizational values was observed, the blocked motives resulted in irrational behaviour, which evidently influenced the project outcome. The bi-directional relationship between a project sponsor, Owner, and the project manager, PM, was already discussed in the Chapter Project Management.

It is fairly certain that this important trust and support relationship was not present in Project1. As a result, PM's prepared project approach was not defended by Owner. Instead, the prepared project approach was rejected in the first STC meeting in June. In addition, the responsibility for the human resources in Project1 was completely transferred from PM to the STC, which was lead by Owner. Despite the requests and warnings from PM, the STC did not execute this responsibility and failed to provide the required resources. Owing to the lack of resources, it was not possible to provide the required appropriate project management functions for the execution of a complex and large-scale project such as Project1. Between June and October the lack of appropriate project management lead to several implications, which were presented in the first two Units of Analysis. This may have been the reason why an apparent project progress could not be observed in these four months – neither for the sub-project DD nor for the negotiation FC. In October, ten external consultants were hired by Owner and Initiator to improve the project performance. Yet, even with the support of ten external consultants, the period from October to December was too short to deliver the expected project outcome. Owing to Director-Central01's specific project expectations as well as the organizational culture in general, this outcome evidently lead to a distinctive situation with a strong impact on human resources – as described in the Holistic View Chapter.

6.4.3 Template Analysis of the Motivation of Unit PM, Project1

The first two Units of Analysis showed that the selected stakeholders in these units perceived the building blocks in the same way. In the third Unit of Analysis, PM in Project1 and the two selected stakeholders perceived the building blocks differently.

This is the reason why the Template Analysis for PM and Owner is presented separately⁴⁰.

An Explanation for PM's Behaviour

By the time PM took over the project manager role in Project1, she had prepared a project plan, which - among other aspects - highlighted her limited project management knowledge as well as listed the human resource requirements for Project1. At this early stage in her role as project manager, the opportunity rewards, consistent with a sense of meaningfulness and a sense of choice, were interpreted by her in the form of a contribution to an intrinsically rewarding environment. Driven by the feeling that managing Project1 was worth her time and energy, as well as the fact that she had the freedom to make informed choices, PM fully lived her project manager role and prepared this project plan. Owner accepted the project plan and scheduled a presentation of it in the next STC meeting. The project plan outlined that User03 would take over the role of the technical project manager, in addition to his role of representing one country. However, obviously, from the perspective of User01 the interest of a country CIO and the technical project lead could not be combined, and, as a result User01 criticised this plan heavily.

Besides the technical project manager role, also the suggested project approach was criticised strongly and modified. Furthermore, the contract of the last remaining external human resource from the project initiation phase was not extended, and other resources required were not confirmed. At this point in time, PM must have recognised that Owner was not covering for her decisions and she did not have the desired freedom of choice. Instead of supporting PM, Owner established rules and control mechanisms which limited PM in making informed choices. In particular, Owner took over the lead of communication management, which resulted in PM not being invited to present her projects in international meetings. As a result, the opportunity rewards were completely destroyed for PM. While the vision seemingly was still exciting and contributed to a sense of meaningfulness, PM was forced to take over task purposes, which were not complete and thus irrelevant for a project manager. In addition, her role at that stage

⁴⁰Table 14 and 15 in Appendix F provide a summary.

included aspects, which did not satisfy her passion, which obviously provides a sharp contrast to the suggested project plan. Furthermore, PM recognised that she had neither the freedom of choice – due to her lack of authority and trust - nor would she receive information – due to the fact that Owner took on the role of communicator making informed choices. Naturally, the aforementioned STC meeting must have destroyed her feeling of a sense of meaningfulness and choice.

Apart from the opportunity rewards, the accomplishment rewards must also have been impacted heavily. Owing to the lack of authority to hire resources, PM could only at times report matters and express the urgent need for resources. The users, represented by User02, recognised the lack of resources, but apparently did not feel responsible for making a decision. Owner, who was leading the STC meeting and controlling the communication processes, explained that he had addressed this issue with Initiator, but never had received an answer. As a consequence, PM did unsurprisingly not receive the urgently needed resources. Owing to the lack of the required resources to execute Project1, the building block ‘Providing Knowledge’ was non-existent and could not support PM in the establishment of an intrinsically rewarding environment. The lack of the required technical knowledge transformed Project1 into an impossible challenge for PM, in which high, non-comparative standards could not be created. Apart from the resulting missing sense of competence, this situation caused the absence of all building blocks necessary for creating a sense of progress. This situation must have caused a big amount of frustration for PM. The observed form of frustration was resignation, which is one of the five forms of frustration in the Cognitive Dissonance Model. PM’s frustration finally resulted in unconventional behaviour, which was the self-expression of her discontent in the work place. Despite her growing frustration, PM could obviously not escape her professional personality and continued nevertheless to contribute to Project1- as much as she could in this situation. Owing to her high level of soft skills, PM managed to initiate the contract renewal for Resource02 (see Unit Users). Hence, it becomes clear that, on the other hand, PM continued to speak up, in incidents such as reporting human resource issues, which in turn caused new heated discussions with Owner and ultimately added to the tense work relationship between them.

In brief, resistance in the form of deliberately sabotaging Project1 by inactivity was evidently not observed.

PM's unconventional behaviour was her attempt to change her negative emotions by means of finding solutions - a way out of an impossible task such as managing Project1 without the required resources and in absence of Owner, with whom collaboration was obviously difficult. This, consequently, required her leaving local CIO due to Owner's position within the organisation. Supported by ProgMgr, PM tried to assign PMtech the project manger role. Owner supported this approach owing to his own interest in the dismissal of PM. However, this approach failed and Owner re-organised Project1 and his department. During this reorganization process, PM lost her project manager role and therefore the direct reporting line to Owner. Nevertheless, PM still had preserved her negative feelings and wanted to leave local CIO. In the background, PM continued to search for a new position within the operating company. In April +01, PM was finally successful in leaving Project1 and thus local CIO for a position with Vendor-Company01, due to which her negative attitude changed back to a positive one.

An Explanation of Owner's Behaviour

It can be assumed that Owner must have recognized in Project1 and project AM the opportunity for personal gain. Owing to his positional power, Owner was able to create a sense of meaningfulness and a sense of choice. Apart from the clearly identified passion and the exciting vision, Owner was also seemingly able to 'Ensure Relevant Task Purposes' and 'Provide Whole Tasks' for him to create the feeling that Project1 was worth his time and energy. It rather seems that only the building block 'Building a Non-Cynical Climate' may have limited the sense of meaningfulness. Owner's perspective when executing a project such as Project1 was perceptibly straightforward, because it appears that the vendor had to be 'duped' to the maximum and the other countries had to comply – even if he had to threaten them to involve the central board of directors. It became evident that if somebody did not agree with his view, Owner immediately would apply his tactics including persuasive reasoning up or losing his patience (see Behaviour Section). The same behaviour was applied to situations involving leading his subordinates, from whom he clearly expected results. PM though failed to deliver the expected result, namely the successful acceptance of her project

plan in the STC meeting, and, as a result, Owner judged PM to be incompetent. Of course, it became obvious that, from Owner's perspective, the failure arose from PM's side and not his missing project support.

Except for the building block 'Providing Security', which is influenced by the organizational culture, Owner presumably had the freedom to make informed choices. It can be assumed that the possibility of 'finger pointing' as well as the judgement that PM was incompetent, convinced Owner that he had to ensure an appropriate project execution. Therefore, Owner introduced the rule that the STC, which he was leading, had to confirm all expenditures and also took over all direct communication with the project stakeholders – allegedly with the purpose in mind of avoiding unnecessary escalations and confusion. Furthermore, Owner evidently controlled the human resource process, due to the fact that he decided on the STC meeting agenda. In other words, before the STC meeting could discuss a human resource issue, Owner had to approve this issue. Even though PM clearly communicated the lack of resources and at the same time the sufficient budget available, Owner neither did extend the contracts of existing external resources nor provide the required additional resources. As the building block 'Delegating Authority' discusses, solely Owner had the authority to make decisions in these matters. Therefore, the assumption that Owner invested much thought and energy into these issues can be questioned. From Owner's point of view, the project must have been straightforward, hence laying off external consultants without replacing them seems absolutely justified. As a result, the need for Owner to replace or provide additional resources was in actual fact of little importance.

The building block 'Providing Knowledge' contributes to this line of argument. From his perspective, the Owner must have considered himself as an expert in executing projects, as he advertised his success rate in managing projects at 95 per cent, and he also promoted his experience in managing projects such as Project1 even prior to commencement. Furthermore, he evidently self-judged his implicit and explicit knowledge as excellent. It could be observed that owing to his excellent education, his logical mindset and his ability to hard-talk, the Owner was able to present and sell his professional ideas and project aspirations.

However, apart from the image Owner produced of himself, the reality in contrast delivers evidence that Owner may have had knowledge in theoretical project management and motivation methodologies, but was clearly not able to deploy them practically. The Holistic View – as outlined in the previous Chapter – elucidates the fact that the required project management documents were not available. In fact, not one of the suggested project management knowledge areas had been applied appropriately for Project1. Assuming that Owner truly possessed this extensive knowledge and experience, he would have required the appropriate deployment of a project management methodology. Furthermore, Owner clearly ignored in this context the input of the users, who strongly criticised the lack of an appropriate project execution process.

In conclusion, owing to the lack of sufficient and appropriate resources to deploy a project management methodology, the building blocks ‘Fostering High, Non-Comparative Standards’, ‘Tracking Milestones’ and ‘Measuring Improvements’ could not contribute in Project1 to an intrinsically rewarding environment. As an effect, the milestones ‘Celebrating Progress’, ‘Recognising Skills’ and ‘Providing Appreciative Feedback’ also could not contribute to an intrinsically rewarding environment, which finally did not provide the reward of accomplishment for Owner.

On this basis, it can be deduced that Owner, due to a missing accomplishment reward, became frustrated about the project and thus with the responsible person who he perceived to be PM. It appears that from his point of view PM must have been incapable of executing Project1- as the incomplete project outcome seems to demonstrate. Owner expressed his frustration presumably in the form of aggression against PM - his own feelings of professional frustration projected into PM. Consequently, Owner must have decided to assign PMtech on Project1. It is apparent that an employee of Vendor-Company01 would have been a suitable ‘Scapegoat’ for Owner and thus for imminent punishment. After this plan, however, failed and the evidently the panic button was pushed, Owner presumably wanted to elect PM02 as project manager, yet, PM02 was rejected by the STC members and thus Owner took over the project manager role until he hired PM03.

6.4.4 Discussion

The Unit of Analysis Vendor managed to expand our understanding of the fundamental inability of any quantitative survey strategy to provide the required flexibility for behaviour-related research in the context of this study. Furthermore, the aspect of limitation based on pre-assumed situations evidently also has to be extended onto the stakeholders, which are crucial for this study. In reference to the situation of the User and Vendor, the need for analysing the participants PM and Owner became visible. In other words, the flexibility of the chosen qualitative approach enabled the researcher to identify the aspects that are important for supporting the analysis of the research questions. Besides, the examined project situations helped to further comprehend which stakeholder input should be taken into consideration in this behaviour-related study. This finding substantiates the assumption made in the stakeholder discussion that an early, preliminary selection of stakeholders would limit this study already at its initial stage. Due to the chosen research design, this study seems to be able to outline the important project situations and stakeholders for Project1 and how these situations have had an impact on the overall project success as well as to explain the behaviour of the involved stakeholders. This specific behaviour in question is the self-expression of discontent at the work place – yet depending on the individual's own rationale. This rationale for her/his behaviour correlates with the individual's specific approach to success and failure of IT projects. In line with the Attribution Theory (Weiner 1986, Furnham et al. 1994), Owner's behaviour can be described as 'self-serving', which means that the unfavourable outcome is attributed to causes external to himself. Hence, PM consistently was made to perceive her actions as not leading to positive outcomes. This finally resulted in a downward spiral whereby PM felt helpless "to act for fear or being implicated further in failure" (Standing et al. 2006, p. 1150), which she expressed in the form of frustration. In both cases, the causal factors set the expectation for success (cognitive psychological consequence) and resulted in the behavioural consequences described above (Cort et al. 2007). While for most attribution models the internal-external distinction is central (Schaffer 2000), the evidence presented in this Chapter indicates that the project environment of the operating company is crucial for shaping its attribution patterns within the involved stakeholders.

6.5 Conclusion

This Chapter presents the Template Analysis of the collected evidence for the selected three Units of Analysis for Project1 and showed that the integration of a human-centred philosophy may be able to explain the behaviour of the selected stakeholders, regardless of their role or personality.

Nevertheless, this preliminary evaluation does certainly not allow the conclusion that the generic research questions can be answered automatically. This Chapter may illuminate the answer to the question ‘Why do IT projects fail’, however it does in no respect seek to answer the question ‘What could be done to improve the situation?’. In short, it can be stated that only by clarifying the second question, the Comprehensive Problem-solving Picture can be completed. This discussion is finally presented in Chapter 9.

In addition, the examination of each Unit of Analysis provides interesting findings. The first finding in this Chapter supports the central argument presented in Chapter 1 that the recommendations of the introduced project risk research cannot solve the underlying cause for project failure. Accordingly, to this prevailing underlying cause the selected stakeholders behave in a particular way, which evidently influenced the project outcome negatively. Another finding is that a quantitative approach based on a questionnaire would not have provided the insight required for this study. Finally, the theoretical expectation that an advanced definition of the selected stakeholders would limit this study can be supported. It seems that only the flexibility of the chosen research design can provide the appropriate approach for this study.

7 Holistic View on Project2

7.1 Summary

The second project conducted in this study is named Project2. In contrast to Project1, Project2 promises an interesting additional aspect: The operating company, represented by the Gatekeeper HeadPM, had just achieved a notable project management award. Yet, HeadPM explained that the special effort, due to which they had received this award, had not been deployed in all projects; nevertheless all projects followed the same internal project management methodology. This internal high standard, as well as an excellent project manager on the job, contributed to the acceptance of Project2 for this study.

7.2 Introduction

The LOOP initiative consisted of several marketing concepts with the objective to increase the market share of the operating company by releasing new highly competitive products. From a technical point of view, Project2 had to provide new software functionalities to attract new customers. The business plan contained the prospect that Project2 should have been available on 15th November (commercial launch).

The operating company is the German subsidiary of a European telecommunications cooperation. Besides the ownership of their own mobile network and a roaming agreement with other telecommunications co-operations, the operating company provides mobile data services and conventional telephone network services. These services are offered nationwide through their own stores and partner shops. Furthermore, the operating company utilises indirect sales channels such as speciality retailers and superstores as well as joint ventures with other cooperations and service providers.

Project2's operating company is a traditionally structured company, which employs an average amount of personnel and is lead by seven directors. At the time of the research, beneath the CEO, six managing directors were in charge of Finance, Networks,

Corporate Affairs, Information Systems, Sales & Marketing and New Business & Product Marketing. Furthermore, the CEO was supported by six administrative departments for (1) brand management, (2) human resources, (3) corporate strategy & consulting, (4) business, (5) corporate communication and (6) customer experience management.

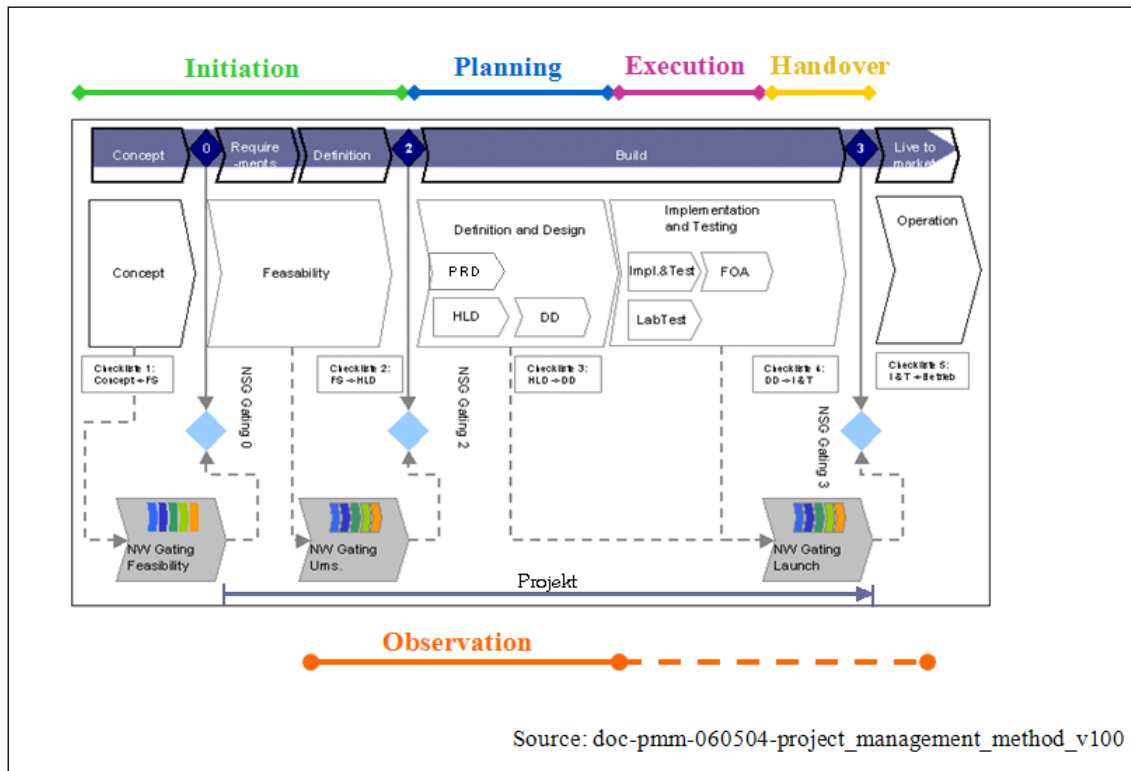


Figure 1) Generic NW Project Life Cycle of Project2

Projects within the company were assigned to the departments involved and executed as internal joint ventures. Project2 can be defined as the sub-project, which intends to deliver a technical solution. Owing to the technical content both technical departments have to be involved in this sub-project: First the Information Systems (IS), which is the department responsible for managing the information systems, and then the department Networks (NW), which oversees all network issues. Furthermore, to implement the requirements of the internal customer the support of operational departments is required. The integration of these operational departments is achieved by integrating the required resources in the project team. The generic project approach of NW structures every project by means of Gates. These Gates or checkpoints require certain documents,

which have to be accepted by the Networks Steering Group (NSG) to pass the Gate. The following Figure 9 displays the generic approach including the Gates, project phases, work packages and main deliverables. Additionally, the NW approach is linked to the generic project life cycle to provide a comparison between the two projects of this study.

7.3 The IT Project Outcome

Referring to Shenhar's idea – as aforementioned - that 'one size does not fit all' when it comes to measuring the project outcome, it can be hypothesised that a project distinction is required to provide the possibility of comparing the project outcome of various projects.

7.3.1 Project Distinction

From a technical point of view, Project2 is a software project, which will add new functionalities to an already familiar system. The project team as well as the selected vendor for this project already had experience within this technical environment. Furthermore, similar projects had been executed in the operating company before. Therefore, Project2 can be assessed as a low-tech project. In reference to the Multidimensional Strategic Concept (Shenhar et al. 2001) for low-tech projects, the focus of the success dimension lies within the project efficiency as well as the impact on the customer. In particular, two success dimensions cover the traditional method to measure a project success, namely to meet the schedule goal, the budget goal, the technical specification and functional performance. Shenhar et al. (2001) argue that these success dimensions can be assessed in a short time frame after the project has finished.

7.3.2 Meeting Schedule Objective

The NSG Gate 2 was officially passed as planned, even though certain details such as the feasibility study and the contract signature with Vendor-Company01 had not been delivered.

On 24th April, the feasibility study was available in version 0.1, a first draft only. Version 1.0 of the feasibility study was available one month later on 18th May. Therefore, the NSG Gate 2 was passed on as a first draft. Furthermore, the contract with Vendor-Company01 was not signed, even though Vendor-Company01 was already working on their project tasks. It has to be mentioned that, from a legal point of view, no contract was negotiated between the operating company and Vendor-Company01. Already at Gate 2, the project team prepared for a worst-case scenario, in which weekend work was the recommended action in case unexpected situations required over-time. ProgMgr was informed about this situation in the project manager meeting on 13th June, where in total three weekends were reported available as a buffer for Project2. This buffer was finally not sufficient to cover the occurrences between Gate 2 and Gate 3b such as the difficult procurement process, additional change requests and technical issues of all natures. Therefore, already from August, weekend work and extensive overtime was required from the project core team members. Furthermore, one of the unexpected occurrences was the request of the internal customer to change the commercial launch date, Gate 3b. Instead of January +01, the internal customer expected Gate 3b on 15th November, because the product was the key product for Christmas business. Owing to a misunderstanding at the beginning of the project, Gate 3b was scheduled for January +01 after the production freeze. This misunderstanding was recognised in May and lead to a top management escalation. By decision of the management the commercial launch was requested for November. Apart from this time-consuming escalation, PM had to update his project schedule accordingly. Finally, Gate 3b was scheduled for 27th November. Owing to these occurrences the milestones between Gate 2 and 3b were not met as scheduled. Nevertheless, on 27th November the commercial launch was delivered and celebrated as a great success. Congratulations from the internal customer, from the head of consulting and projects as well as from the director level were received on 30th November. In the final project performance evaluation the key performance indicator (KPI), which had been prepared by PM for his own Project2 as required by the internal project management methodology, shows that Project2 outperformed by 115.76 per cent in terms of time. This result was calculated by the difference between the first Gate 3b and the second Gate 3b, which was imposed on the team by the management decision.

Considering solely the delivery of the important Christmas product functionality, the schedule objective was in fact met. Of course, this functionality, the new product, was the main objective for Project2. The researcher's view ignores sub-objectives; sub-objectives such as delivering a product quality do not add uncalculated risks to the overall IT landscape. The section 'meeting technical and functional objectives' intends to provide the required insight that Project2 added an uncalculated risk to the overall IT landscape. Therefore, to offer an objective view on Project2's approaches and systems, the time required to manage these uncalculated risks had to be added. As a result, it became evident that Project2 could not meet the schedule objective if an objective view was applied.

7.3.3 Meeting the Budget Objective

The project management methodology handbook explains that the project manager has a virtual budget. In the case of Project2, PM had a virtual budget for the external vendor and was also responsible for tracking the man days of NW resources. Both numbers were controlled by the internal system 'Clarity'.

A fix price contract with Vendor-Company01 was negotiated and subsequently signed. During the negotiation process the central procurement department of the operating company was able to slash the price by 30 per cent. In a separate project meeting, Vendor-Company01 explained that they had to generate a margin with for this project, because previous projects with the operating company had not delivered the required margin. This statement was discussed in the project meeting, yet, nevertheless, the central procurement department brought down the price. The final contract was concluded on 8th June. Already by the end of May, PM reported that he expected an additional service invoice from Vendor-Company01. ProgMgr and PMtech were not surprised and recommended to clarify this issue with the internal customer. In this meeting the internal customer accepted the invoice and agreed that it would be paid with his budget – incidentally, a budget, which is not related to Project2; this additional invoice already covered 50 per cent of the price reduction achieved during the negotiation.

Further additional service charges were expected due to the new delivery date of 27th November, because more resources were required by Vendor-Company01 to deliver the same functionality as earlier in the project. One of these extra invoices was covered via the project budget, which finally covered also the second 50 per cent of the negotiated price reduction. Evidence of further service invoices of Vendor-Company01 could not be collected in this research, but comments hinting at the possibility were frequently overheard. In this study, the planning phase of the man days was presented in the required documents for Gate 0 and Gate 2 and was afterwards taken over into 'Clarity'. The documents RIA, PRD and Feasibility Study contain solely the planning numbers for the NW resources. Other planning numbers such as the expected man days for IS resources are not included in these documents. During the project meeting on 30th May, PM and PMtech explained to ProgMgr that they did actually not track their progress utilising the system 'Clarity'. Only the final spreadsheet, in which the man days of the different departments were estimated, may provide an overview. This final spreadsheet for Project2 lists up the amount of man days for three departments mentioning two names from January until May. Resources including PM and PMtech or other IS resources and internal customers such as ProgMgr are missing - as well as any figures from June to December. In other words, neither Clarity nor the final spreadsheet provided any information about the number of days spent on Project2. As a result, it can be deduced that an overall realistic budget overview of Project2 was not possible. In the final performance evaluation, the KPI for the internal effort (man days) was put down as 100 per cent, yet commenting that this value could in actual fact not be assessed, as no time recording was available. Besides this statement, the fact that the main project objective was only achieved by extensive overtime and weekend work of the project core team, was neither mentioned nor considered in the KPI. Therefore, as can be seen from these findings, the 100 per cent achievement of the internal effort KPI does not provide a realistic view of the effort required. The second KPI that is important for this section can be defined as the budget KPI, which was outperformed by 120.37 per cent and was based on the negotiated price reduction. Additional service charges were not included in this KPI. Once more, also the budget KPI does not seem to provide a realistic view of the budget required.

Furthermore, both KPIs did not consider the budget that was required to manage manual workaround solutions created in Project2. These manual workarounds have been left as an uncalculated risk in the IT landscape.

In summary, both KPIs evidently cannot provide a realistic picture of Project2. The budget objective was not achieved by Project2.

7.3.4 Meeting Technical and Functional Objectives

The congratulations that were received from the internal customers include appraisals such as that the product quality was very good as well as the number of new customer registrations. In the final performance evaluation, the KPI for deliverables was set at 86.36 per cent. This final consideration of the technical and functional objective did not include the manual workarounds for unexpected occurrences. From a technical point of view, the operating company had a large and very complex IT landscape, which delivered the various services to their customers. Their business evidently depended 100 per cent on this IT landscape. The individual technical areas were maintained by various departments, which participated as project team members in the various projects. Generated by Project2, several technical issues were created which were dealt with by manual workarounds. The first major manual workaround can be seen as the load balancing, a system that regulates overload situations to avoid system failures. An overload can be caused, for instance, when too many new customers register simultaneously due to a new Christmas product. One system failure may cause a chain reaction or a so-called bottleneck situation with the effect that the customers cannot register anymore or – even worse – may effect the overall delivery situation for all customers, which would be indeed a dramatic situation for a telecommunications provider. This issue was raised within the company at the beginning of May and frequently discussed until the decision was made to create a manual workaround due to the lack of sufficient time and resources for an alternative solution. In contrast to an automatic solution, in which a system would control the load, the load is manually directed (over pre-defined fix tables). The second manual workaround can be defined as recharge, which means that, owing to an internal interface issue, recharges for cancelled vouchers are credited to the customer, however the time bought is not deducted from

their account. The danger would be that if such a situation becomes public knowledge, customers could misuse the situation. In this case, considering the fact that the operating company was at that time one of the three largest mobile communication providers, the risk would have been the considerable financial impact. In fact, PM confirmed in a mail that this issue could not be solved within the time available and thus a manual workaround was accepted again. On the other hand, the impact was subsequently analysed and the number of recharges, which belonged to this specific case, were assessed as limited. Therefore a manual workaround was installed, in which somebody had to manually correct the accounts of the customers who had their vouchers cancelled. Of course, owing to the bank holidays over Christmas the manual process was expected to be very slow. Interestingly, after passing Gate 3b the risky process was handed over to operations. Project2 ended eventually by passing Gate 3b and for both manual workarounds no projects were initiated to establish an automatic solution. Owing to the fact that these two manual workarounds were directly caused by Project2, these functionalities belong to Project2. A manual workaround may be acceptable for the more important objective of providing the customer with the desperately required Christmas product; however, the stability for the overall IT landscape would have to be guaranteed as well.

In other words, Project2 created side effects of uncalculated risks for the overall IT landscape. Therefore, Project2 was assessed to have failed to deliver the technical and functional objective. The next section elucidates the impact of these uncalculated risks on the operating company.

7.3.5 The Impact on the IT Project Outcome

The project efficiency as described in the previous Sub-chapter concerning meeting timescale, budget and functionality, intends to offer a first insight into how well Project2 performed. However, to finally assess the project outcome, the impact on the customer has to be analysed as well.

Organizational Impact

Owing to the extensive overtime and weekend work, the involved project core team members had to work full-time on Project2. Furthermore, the increasing number of meetings due to this situation also reduced the net time available for operational tasks. As a result, all parallel activities were postponed. PM and PMtech, for example, postponed finalising the project charter for Project2 and all activities concerning R18 in May. The Unit of Analysis 4 intends to examine the positive and enthusiastic nature of PM and his obvious ambition to become an excellent project manager. Project2 was the first project for PM, in which this extensive timely investment became necessary. Subsequent to Project2, the postponed tasks for R18 and the fix release schedule from IS forced PM to execute the next project under the same pressure. Apart from the fact that the project team members involved in Project2 created due to their actions a negative impact on future projects, the manual workarounds also had a strong organizational influence on the outcome. Assuming that the outcomes of manual workarounds were deployed in other projects as well, the logical consequence would be an increasing complexity of a fragile IT landscape and thus IT projects in this environment.

In June +01, the situation of operating a fragile IT landscape escalated and a major weekly newspaper printed the headline: “IT has joint guilt in the crisis of the operating company” (pmm-othe-070608-crisis_based_on_it). The article criticises the poor IT implementation, which inevitably lead to an inflexible IT landscape.

Financial Impact

The financial impact can be seen as a chain reaction. Firstly, individual projects such as Project2 require considerably more time. This time is covered by the salary of the employees working for the operating company and additional service invoices of the vendors. Secondly, important tasks may be ignored which reduce quality - quality in the form of manual workarounds, which require new projects if a certain quality is required to avoid a fragile IT landscape. The financial impact is an increasing number of projects, which are solely focused on technical – quality – issues. Thirdly, parallel market oriented projects, such as R18 for PM, could not be started as planned and

would either be postponed or require additional resources to be executed. Owing to the complex and fast-changing mobile communications market, these market-oriented projects are required to deliver new and up-to-date products to remain successful within the market. In summary, the financial impact of this situation on the operating company appears to be significant. However, Project2 cannot be made responsible for this considerable financial impact alone. Yet, it seemingly outlines the internal situation of the operating company. The manual workaround recharge, for example, provides evidence for the described chain reaction. In this example, one department deployed an outdated interface technology, which was not compatible with the interface technology deployed in the other current projects. Apart from the lack of resources of this department to support Project2, new technical – quality – focused projects were required to update this outdated interface technology. In short, these technical projects caused additional costs without having any effect on the market. Hence, the fact that to request the required budget for these technical projects from a market-oriented management is extremely unpopular requires no further discussion. Consequently, these technical projects have been avoided.

Whereas the organizational impact seemed to have been played down by the operating company, the financial impact could apparently not be denied so easily, especially after this impact had been publicised in the press. Apart from the first article previously mentioned, which links the fragile IT landscape with the lower margin of the operating company (pmm-othe-070608-crisis_based_on_it), other articles focus on the financial situation of the operating company. For example, the operational margin of the operating company was described to be considerably behind their competitors. Furthermore, the press reported that - despite an increase of new customers subsequent to Project2 had been launched⁴¹ - the revenue was decreasing. These articles highlight the financial effect on the operating company – despite an increase of new customers the operational costs increased more rapidly; operational costs which are based on, for example, executing and maintaining manual workarounds or additional quality oriented projects.

⁴¹With Project2, another large customer-oriented project was launched, which was expected to contribute to an increase in customers.

To conclude, all these published articles underline clearly that the operating company was actually successful in winning new customers, but the overall profit was decreasing owing to increased operational costs. Ultimately, this situation could not be kept secret and was published in the press.

The Human Impact

According to the significant organizational and financial impact, it is evident that human impact cannot be avoided. In addition to the pressure of the current projects in the form of weekend work and extensive working overtime, the operating company acted upon the published articles: The German top management was replaced, between 700 and 1000 jobs were cut and the internal organizational structure was changed. In the new organization, HeadPM, the manager of NW, took over different responsibilities for a smaller group, which was not executing projects. The overall effect on the operational employees was an increased level of frustration and fear of losing their workplace. Even if PM was recognised as an excellent project manager - and he did not have to fear losing his workplace - the level of frustration nevertheless increased and at some point he was actually about to leave the operating company for this reason.

In summary, Project2 was internally celebrated as a successful project. Nevertheless, except for the successful delivery of the desperately required Christmas business product, Project2 merely managed to contribute to a more complex IT landscape. Furthermore, combined with side effects of other projects executed within the operating company, this factor had a major impact on the organizational, financial and human side. As aforementioned, Project2 is a low-tech project, which had the objective of realising a new product. The product idea itself was created by the internal customer, and therefore, the market acceptance of this product is basically not a success which Project2 can be credited for. On the one hand, Project2 delivered the technical product just in time for the Christmas business, on the other hand, in reference to the Multidimensional Strategic Concept, meeting the schedule, budget and technical/functional objective with the impact on the customer were already the initial success criteria.

Apart from the last milestone of delivering the required product, no milestone was met either by date or content. Even by meeting the last milestone date, from a content point of view, the element of manual workarounds delivered sufficient reason to devalue this suggested achievement. Furthermore, the budget objective was evidently not met. Even without considering the unavailability of the budget figures, the weekend and extensive overtime work as well as the additional service invoices of Vendor-Company01, demonstrate this clearly. Finally, from the technical side effects of the manual workarounds to issues caused by this new product and in combination with other projects, all these factors contributed without doubt to an overall negative impact on the operating company. Therefore, the conclusion can be drawn that Project2 was not executed successfully.

7.4 The Project Environment

7.4.1 The Organizational Culture

The findings of this research give evidence of one particular, culturally influenced behaviour pattern in Project2 that requires filtering. This behaviour can be described as the pressure executed on PM – presented as a green or yellow project status in the initial phase of the observations.

During the project manager core team meetings, ProgMgr was pushing for a green or yellow status even when he knew the real status. ProgMgr frequently joked about this status, which he called ‘cherry-green’. ProgMgr was supported by PMtech who also preferred a green or yellow status. At the end of June, when the weekend and extensive overtime work had started, PMtech still supported a green status for R17, even when he had already acquired a different opinion - as the next Chapter intends to show. PM was also asked by his direct manager PMmgr via email whether a green status could be reported for Project2 one day later. In addition to this mail, PMmgr personally discussed this issue with PM as well, presumably to convince PM that a green status was justified. Even though PM initially displayed some reluctance, PM finally complied with the request by providing a green status. Yet, the project status report of 19th May showed an overall yellow status, although the detailed status listed two dark yellow and two

bright yellow traffic lights. The two dark yellow clearly indicate the strong tendency toward red. Ten days later, based on the two escalations around the earlier launch date and the recharge issue, PM wanted again to report status red for his project, but was convinced once more by ProgMgr and PMmgr to report an overall yellow status. In July, after the project schedule had been adapted to the earlier requested commercial launch date with the effect that the duration of the testing phase decreased, and even being aware that Vendor-Company01 had delivered an unacceptable quality standard in the previous two projects, PM reported an overall green project status. Despite the challenges in July and August, the overall project status never changed to red. During the interview with PM, he admitted that personally he perceived Project2 as ‘not green’; the dark or bright yellow lights would not have any impact at all. By the end of November, when the second test phase had failed and ProgMgr had already taken over other responsibilities, which required his complete attention, PM eventually reported the first red status.

7.4.2 The Socioeconomic Environment

The business plan of the internal customer requested a flexible configuration of the credit expiry due to an on-going legal dispute. Yet, three months later a verdict was published, which forbade an expiry date for pre-paid credits. At first this verdict seemed a surprise for PM and PMtech, who immediately validated the changed situation and the impact on their project. After two meetings, however, they were satisfied with this verdict, as it had apparently no impact on their technical specifications due to the fact that the required functionality was already included in the business plan.

Whereas the internal customer considered a legal discussion in his specifications, PM and PMtech did not consider any impact from the socioeconomic environment. Interestingly, the ongoing legal debate was not actively considered until the impact was analysed in the verdict. On this basis, it is evident that Project2 did not consider the socioeconomic environment.

7.4.3 Template Analysis of the Organizational Environment

The principal area of maturity of the project environment can be seen as the project strategy. However, in Project2, out of the four key success factors – as defined in the previous Chapter, the operating company did not genuinely implement one single factor. Within the boundaries of project management professionalism, the second area of maturity assessment, the operating company of Project2 implemented the key success factors ‘pay’, ‘make project management a career track’ as well as basic elements of ‘nurture competence’. The remaining key success factors were evidently not fully implemented, which indicates a lack of project environment maturity.

The third area can be defined as the project management methodology; the project management handbook is a guideline, which provides the tools and techniques for executing projects within NW. In detail, the handbook contains the project life cycle, tools and techniques as well as important links to other internal processes owned by other internal departments. Owing to the internal purchasing department’s ownership of the procurement process, this project management knowledge area was excluded for this analysis. Especially in reference to scope, cost and quality management the project management handbook (even though not owned by NW) contains a detailed description of tools and techniques. The communication and change management also provide a set of tools and techniques for the project execution, which in comparison to the first three project management areas are not defined in detail. The integration and risk management areas can offer basic support for a project manager. In view of the project management handbook’s significance, the existence of the mandatory documents allows drawing the conclusion that the NW project management methodology provides a light set of tools and techniques. Even when delivering the required documents, this methodology seems to offer sufficient room for a project manager to decide how to execute the project management knowledge areas - such as the risk management in which three optional templates are provided without any further description. On the one hand, this maybe the strength of this approach, as it requires only a minimum of documents and processes from and provides freedom for the project manager to deploy his or her own experience and knowledge in order to achieve successful project

execution. On the other hand, this may also be the challenge, as this approach requires vast experience and widespread knowledge from a project manager.

Even the availability of the NW project management methodology and other internal processes seems not sufficient for a mature organizational environment. The project strategy and project management professionalism apparently also cannot support a successful project execution⁴².

7.5 Template Analysis of the Applied Project Management

Despite PMmgr's and ProgMgr's management support and the resulting limitations due to, for instance, the lack of an STC as well as appropriate resources, PM managed to deploy project management processes. The presented outputs intend to give an overview of the type of documents that were utilized. In the context of this research, a further evaluation of the project management processes quality level was assessed as not required. If the majority of the outputs are found, the assumption can be made that the project management area was actually deployed at least at a minimum level. Regardless of the level, the general 'yes' signals that the project management knowledge area was deployed in Project2. In some cases the tools and techniques were not appropriately used, or the documents were not completed or maintained, and therefore the related project management area was rated as 'basic'.

Findings indicate that the project management knowledge areas integration, scope, quality and change management were executed as required by the NW project management handbook and the related internal processes. In particular, some of the requirements, such as the delivery of a signed PRD two weeks after Gate 2, were not met, however, all in all, the evidence seemed sufficient to assess these project management knowledge areas as deployed. Concerning the two project management knowledge areas cost and communication management, the collected evidence demonstrates that these processes were deployed only on a basic level.

⁴²A summary is provided in Table 12 in Appendix E.

Whereas the primary knowledge management areas are defined to a certain extent by the project management handbook and related internal processes, the time knowledge management area requires the professional knowledge of the project manager. In this area, Project2's PM, together with the project core team and Vendor-Company01, showed his strength through professional creation and efficient maintenance of a project schedule.

As seen from the research findings, the remaining project management knowledge areas, 'human resource' and 'risk management', were not executed appropriately and according to the recommendations. As a result, owing to the obvious lack of responsibility the procurement management is excluded from this assessment.

In summary, a project management methodology was deployed in Project2 even though the outcome indicates the strong need for improvement⁴³.

7.6 Conclusion

As is shown in this Chapter, Project2 was able to deliver its primary objective to launch Christmas business. Except for the punctual delivery of the primary objective, all other objectives within the requirements for a low-tech project were clearly not achieved. In addition, weekend work and extensive overtime as well as additional service invoices from Vendor-Company01 altogether exceeded the planned budget. Furthermore, the secondary objective, namely to deliver a software quality which would not interfere with the stable IT landscape, and which should have been supplied by the internal quality process, was not achieved. The internal quality tests were successfully passed, yet manual workarounds were introduced as well. These manual workarounds were installed and not resolved with required and appropriate follow-up procedures. Assuming that the project execution in this operating company was similar to all other internal projects, the consolidated side effects create evidently a complex and fragile IT landscape. This resulting situation could not be concealed and the press reported about the company's IT landscape. Furthermore, the correlation between maintaining a

complex and fragile IT landscape and the decreasing profit situation – even when increasing the number of customers after Christmas – was recognised by the press. On the one hand, this shows the requirement for more financial resources to initiate new projects to support the fragile IT landscape. On the other hand, the decreased profit situation lead to the described financial impact. This financial impact resulted as a consequence in an organizational and human impact.

The Holistic View on Project2 starts with the organizational culture, which describes a certain behaviour that has to be considered as insufficient for drawing a conclusion without any further evidence to complete the approach of triangulation. This behaviour is the request of the management to receive green or yellow status reports. The socioeconomic environment was clearly not considered by the stakeholders of Project2 despite an ongoing legal debate, which was considered in the requirements of the internal customer and finally managed to deliver the flexibility required. Furthermore, the organizational environment, the maturity of the operating company supporting a successful project execution, can be seen as low. Even the apparent availability of the NW project management methodology as well as other internal processes provided to be insufficient for a mature organizational environment.

To sum up, five of the ten project management knowledge areas were deployed in Project2: while the procurement management was excluded in this assessment, the risk and human resources management processes were evidently not installed by the project manager, and the cost and communication management were only deployed at a rudimentary level.

⁴³Table 13 in Appendix E summarizes how the project management knowledge areas were deployed in Project2.

8 Unit of Analysis in Project2

8.1 Summary

This Chapter presents the Template Analysis based on the collected evidence for one Unit of Analysis of Project2. Previous findings have indicated the importance of Unit Analysis for the project outcome, and thus this specific unit was selected. The fourth Unit of Analysis, which is presented in this Chapter, intends to provide insight into the motivation of both the project and the technical project manager.

8.2 Unit PM of Project2

Unit 4 is selected for the purpose of providing the possibility to examine the influence of the central performers in projects, the project managers, on the project outcome. For this purpose, PM and PMtech, due to the lack of a project sponsor in Project2, were selected. Furthermore, the selection of a project manager for unit four may support further evidence for the analysis of project managers in different environments. It is important to consider that after Project2 had passed gate0, PM and PMtech were assigned for NW and IS respectively; both PM and PMtech executed Project2 until the closing stages of the project.

8.2.1 Resistance of Unit PM inProject2

Project2 can be seen as an average IT project, except for the fact that this project aimed to produce a new product for the Christmas business and no alternative was made available. Project2 did not receive any special management attention, such as the participation of a top management project sponsor or an exclusive staffing of the project office. In fact, Project2 did not have a steering committee and the support (one person for four hours a day) for the project office was withdrawn in September. Nevertheless, PM and PMtech neither expressed any form of resistance, nor any form of unconventional or irrational behaviour of discontentment at work could be observed. Both stakeholders, however, seemed to have recognised disconcerting situations such as the lack of a steering committee, yet this awareness apparently did not lead to a form of discontent at work. The following examples intend to investigate how PM and PMtech

managed to overcome the challenges of Project2 in order to launch the Christmas product as scheduled.

Purchase Order for Vendor-Company01

At the beginning of May negotiations were still ongoing despite the fact that Vendor-Company01 was already working on the project, Vendor-Company01 requested an initial payment for the time they had already invested in Project2. With the focus on the already tight project schedule, PM by-passed the procurement process to accelerate the process of providing the required purchase order to Vendor-Company01 as much as possible. One month later, at the beginning of June, the time-consuming procurement process still could apparently not deliver the final purchase order, and Vendor-Company01 announced again to discontinue working on Project2. As a result of this imminent threat, PM immediately required clarification from the internal purchasing department, which recommended that PM should take care of this purchase order in such way that he himself should directly contact everybody who was involved in the purchasing process. In both cases, PM actually invested additional time to deliver the required purchase orders to Vendor-Company01. In fact, PM was successful in delivering both purchase orders last minute, and thus Vendor-Company01 did not suspend Project2. It seems important to point out that PM had to manage Project2 simultaneously with only one support person (four hours a day) in the project office and handling the diverse escalations.

New Commercial Launch Date

One of the largest escalations happened at the earlier commercial launch date in May. Having recognised the misunderstanding in April, PM and PMtech explained why an earlier commercial launch date would be very difficult to realise. Not surprisingly, PM and PMtech had to invest their time in several meetings, lead intensive debates with the involved stakeholders and prepare numerous slides visualising other possibilities and effects on Project2. Yet, despite their extensive investment of time and effort trying to explain the effect and involved risks of this suggested change on Project2, the top management insisted on the earlier commercial launch date. Subsequent to the refusal of their alternatives on 29th May, PM and PMtech immediately integrated the new commercial launch date into the project plan and reconciled the new milestones with

Vendor-Company01. Again PM and PMtech invested a considerable amount of time to clarify the effect of this change request on Project2. It seems crucial to underline that, despite the refusal, PM and PMtech accepted and understood the requirement of the internal customer for a Christmas product and updated the project schedule accordingly.

Additional Issues during the Planning Phase

Furthermore, in the same period of time between April and July, other types of escalations and challenges had to be managed: The recharge issue was recognised in May, however accompanied Project2 until December. Owing to the limited amount of resources and time, PM and PMtech selected the pragmatic approach of a manual workaround. Another issue was the integration of the department SG. Only following a heated debate, department SG was invited to participate in the project team meetings with one representative, who however did not have the required authority to make decisions. It has to be added that the actual importance of department SG is due to their technical involvement in the recharge issues. One of the interface programs, which are owned by department SG, was the bottle neck to transfer the required information within the internal IT landscape. After an intensive discussion, which delivered nine alternatives, PM and PMtech selected the solution 'manual workaround'. In addition, PM delegated all tasks involving department SG from his project schedule into a separate project schedule. Yet, even by excluding the SG tasks from the project schedule, some technical issues remained, and, in combination with the continuing weak staff co-operation, required additional time from PM and PMtech.

Another issue that occurred at the beginning of June was the load balancing. In the same way as for the issue recharge, PM and PMtech selected the pragmatic approach of a manual workaround, which was as a matter of fact IS's preferred approach. Other minor issues, such as the verdict in June or MSISDN and SOX compliance, were dealt with simultaneously. These issues may help clarifying which tasks PM and PMtech had to manage besides the day-to-day project management tasks within the planning phase. Despite the limited support from the project office, PM and PMtech were actually successful in finding solutions to all issues.

Testing

The second part of the build phase is the project execution phase. As outlined in the previous Chapter 7, within the execution phase the main tasks for the internal project core team was the testing of the software, which was delivered by Vendor-Company01. In the beginning of August, the first internal tests were performed, which were however not executed as planned. Already by the end of August, working overtime was not sufficient anymore and PMtech's suggested 'buffer' to work on weekends, had to be deployed. Depending on their tasks, this included not only PM and PMtech, but also the complete project core team. It was highly interesting to observe that, despite the high number of escalating issues in August and the lack of a steering committee, which could have made the required decisions, PM did not lose his enthusiasm. In addition to the first internal tests, Vendor-Company01's level of quality of had clearly not reached the expected level. Despite the negative experiences made in their collaboration with Vendor-Company01, which was in fact discussed in the project core team meetings, PM planned with the project core team two complete test scenarios for the software developed by Vendor-Company01. Owing to the earlier commercial launch date, the duration of this period was further decreased by some weeks. In October, the second test scenario was not passed and a third test scenario was required. By 25th October some tests were still not completed, and PM reported a rest status for Project2. Only the utilization of a software patch, which was delivered last minute, enabled a successful test, subsequent to which the 'green light' for a commercial launch was given on 16th November.

In summary, after the project planning phase, PM and PMtech continued managing the project execution. It was apparent that, due to the numerous issues - the lack of project office staffing as well as of a steering committee and the need for ProgMgr and PMmgr to report a 'green status' - limitations on the project delivery transpired and moreover extensive overtime and weekend work was necessary. Nevertheless, it could be clearly detected that these limitations and work conditions did not lead to a form of unconventional or irrational behaviour among the main stakeholders.

8.2.2 The Impact on the Project Outcome

Owing to the limitations within Project2 for PM and PMtech, the customary project management functions were not executed as required. Before May, PM was evidently able to execute at least some project management functions - as described in the Chapter Holistic View of Project2 - however, after that, PM and PMtech were mainly involved in solving additional issues which consumed the majority of their time and allowed only little time for executing the crucial project management functions. In fact, PM communicated this demoralizing situation during the project manager core meeting stating that, due to the numerous amounts of meetings, he was behind schedule in delivering his most important tool – an up-to-date project schedule and that in his workload was by far too high. PM and PMtech were apparently in the same situation and forced to sacrifice an appropriate project management system in order to solve all the issues involved. The negative impact on Project2 was that all project management functions were reduced to a limit or ignored. For example, the project schedule was allegedly PM's most important tool to execute a project. However, already at the beginning of August, PM was not able to update his project schedule accordingly anymore. Another good example would be the PRD, the project charter, which was available in version 1.0 on 27th July. Despite the availability of the PRD, this document was not signed in July and several additional changes were requested by the internal customer. Finally, the PRD was signed at the end of November, only one month before the commercial launch date. Again, this required additional time and resources in a phase where PM's attention would have been required solely toward the project execution. By viewing the outcome of Project2 superficially, one could argue that Project2 actually delivered successfully the required Christmas product with a minimum of project management effort. This minimum of project management effort – only one project manager and 50 per cent of human resources in the project office – might have saved a considerable amount of budget, because no other additional resources were required, and the extensive overtime work of internal resources was maybe not important – especially when no appropriate control processes were employed. The reporting of the effort of internal resources seems even more influential, because the internal effort can be seen as a KPI for the performance of the project manager. In particular, the project manager has to choose between a negative KPI when reporting

the real amount of overtime and weekend work, or a positive KPI by not reporting the true amount of overtime and weekend work. In Project2, PM reported a positive KPI for internal effort. HeadPM congratulated PM for his successful project execution during the internal final presentations of the project outcome. Interestingly, HeadPM did not know about, and therefore did not mention, the extensive overtime and weekend work. Furthermore, HeadPM did not discuss the manual workarounds, which would have required additional new projects and therefore would have caused extra cost. Thus, these findings indicate that the resulting uncalculated risks were not considered in an appropriate way to secure a stable overall IT landscape for the operating company. In a second, extended session, the project outcome was presented to PMmgr. During this discussion PM and PMtech mentioned the extensive overtime and weekend work as well as the lack of an appropriate staffing of the project office. PMmgr reacted surprised and answered that in his view a 50 per cent human resource cover of the project office was sufficient. Internally, Project2 was celebrated as a success, because it managed to deliver the urgently required product for the Christmas business. This success was only made possible by the extensive overtime and weekend work of the project core team, and especially of PM and PMtech. Apart from this achievement in the form of the primary project objective, all other project objectives were sacrificed as described in the project outcome section in the Chapter Holistic View of Project2.

In summary, owing to the apparent pragmatic behaviour and extensive overtime and weekend work, PM and PMtech were successful in delivering the primary objective. On the other hand, to achieve this purpose, they were forced to reduce all other activities, which may have helped achieving an appropriate level of quality of the sub-objectives. The low level of quality of the sub-objectives in the form of manual workarounds created evidently an uncalculated risk for the overall IT landscape. Furthermore, prior to Project2, the operating company could be seen as a very successful and profitable company, which included an open-door-policy and excellent work conditions. Redundancies were never an issue in the company history; however toward the end of Project2, this situation was changing dramatically. After the dismissal of between 700 and 1000 personnel in Germany, replacement of the top management level and the re-organisation of the structure of operating company several times, the willingness of

employees to invest extensive overtime and weekend work was seemingly not present anymore.

8.2.3 Template Analysis of the Motivation of Unit PM in Project2

Whereas the first Units of Analysis examined stakeholders that perceived the building blocks very similar or very different, this Unit shows the ones that distinguished only slight differences. In detail, for instance, the building block ‘Fostering High, Non-Comparative Standards’ is perceived differently by PM and PMtech. It was evident during the observation that PMtech recognised the lack of appropriate project management in Project2. However, possibly due to his legal status within the operating company, PMtech did actually not complain excessively about this situation. During the interview with the researcher of this study, PMtech presented openly his opinion; for PMtech the focus was on pragmatism and release management instead of deploying an appropriate project management methodology (*int-060613-pmtech*). He argued that in his view - even without project management training - only 10-15 per cent of the required elements “*required in the books*” (*int-060613-pmtech, p. 3*) were actually deployed in Project2. Especially the lack of an STC - signing a project charter at the beginning of the project - and of a budget, were crucial shortcomings for PMtech. He emphasized that this building block did not contribute to an intrinsically rewarding environment; yet, ‘Fostering High, Non-comparative Standards’ with the purpose of creating a culture of competence based on the link with standards, was in his opinion contributing to an intrinsically rewarding environment. It was fairly obvious throughout the observation though that the limited time and resource situation in the project office could not provided the basis for an intensive fostering of high, non-comparative standards. Nevertheless, the tools PM deployed, especially his project schedule, were in fact of a high standard. In conclusion, from his point of view, the building block ‘Fostering High, Non-Comparative Standards’ contributed to building an intrinsically rewarding environment. Despite the different perception of the four building blocks, the following Template Analysis may be able to elucidate the project process situation. It was fairly obvious that Project2 gave PM and PMtech the opportunity to pursue a worthy project. All building blocks supported their feeling of meaningfulness - that the project mattered and therefore PM and PMtech focused their time and energy on

Project2. Other tasks, such as an additional project for the next release, which PM should have taken over, were postponed owing to the lack of time, which PM noticeably had invested into Project2. Furthermore, PM and PMtech were clearly rewarded with a sense of choice. Within limits, PM and PMtech had the freedom to make informed choices; for PM these limits were extended into exceptions: Firstly, the two purchase orders for Vendor-Company01, for example, for which PM utilised his informal contacts to top managers to push their approval for the desperately required purchase orders, and secondly, the invitation to present his project to the CEO in one particular meeting.

The commercial launch date was perceptibly a major issue and change for Project2, as PM and PMtech naturally wanted to avoid an earlier commercial launch date because of the additional pressure and risk for the project execution. Therefore, they prepared the slides about Project2 effects and alternatives to be presented to the top management.. Despite their preferred commercial launch date on January +01, PM and PMtech accepted the top management's decision for an earlier date. This demonstrated clearly that by accepting the importance of this product for the operating company's Christmas business, PM and PMtech were rewarded with a sense of meaningfulness. Project2 was a valuable mission for both stakeholders, which then also mattered in the larger scheme of the operating company. Regarding the required changes of the new commercial launch date, PM and PMtech had all the information and the freedom to adopt their project accordingly. Backed by the same amount of freedom and level of information, PM and PMtech were able to find solutions for all other issues occurring in Project2. For issues of load balancing and recharge, manual workarounds were selected as appropriate solutions under the present circumstances. Circumstances, such as the lack of resources, time and – for the issue recharge - even the lack of participation of one department, was accepted by PM and PMtech. Whereas these circumstances did not interfere with PM's sense of competence - he believed to be executing high quality work - PMtech did not share this feeling. Although the skills of both stakeholders were evidently not recognised, PMtech perceived the building block 'Fostering High, Non-comparative Standards' differently. In his view, only 10-15 per cent of an appropriate project management system was in place, which – together with the lack of appreciative

feedback and recognising skill – interfered with his feeling of delivering high quality tasks. Yet, despite the lack of this feeling, PMtech actively supported the project execution, which contributed to creating a sense of progress. PM and PMtech seemingly felt the accomplishment of achieving their task purposes, however, due to the limited resources and time, it became palpable that overtime and weekend work was required to advance the project. Owing to the intrinsically rewarding environment as perceived by PM and PMtech, this time investment seemed reasonable.

In summary, PM and PMtech perceived an intrinsically rewarding environment with a sense of meaningfulness, choice and progress. Even though the sense of competence was perceived to a different degree by PM and PMtech, the lack of this feeling did not limit PMtech in supporting Project2. Driven by this intrinsically rewarding environment, both stakeholders were apparently motivated to deliver the expected primary project objective despite the demanding circumstances such as the lack of time and resources as well as the presented project environment⁴⁴.

8.2.4 Discussion

The fourth Unit of Analysis was intentionally selected to corroborate that the chosen research design is applicable to different settings (Figure 5), and therefore the researcher opted for a second project. Project2 varied substantially from Project1; both projects fulfil the required constraints, yet the holistic view of both projects revealed the differences. Project2 was a smaller project on a national scale, executed in a secondary company with a work environment that had been perceived positively (at that time). Utilizing the deployed framework Holistic View the researcher was able to examine the apparent project success: The structured approach demonstrates clearly that regardless of the internal positive perception of the project outcome, Project2 had in reality not been a success.

This Unit of Analysis was defined on the basis of the discovered symptoms. Similar to Project1, the symptoms of Project2 indicated the significance of the project manager's

⁴⁴The Tables 16 and 17 in Appendix F provide an overview.

perspective. These findings indeed generate a great interest in related research on the importance of the project manager. As the job title already suggests, the project manager is a manager who is responsible for the project management (Gooch 1997). In this role, he or she interacts with the project stakeholders to achieve the project objective. Insofar, the project manager is the central performer and, as such, responsible for the project group culture. Consequently, the project manager plays a critical role (Jiang et al. 1998, 2001) in the success of the project. The importance of selecting the appropriate project manager for a project thus becomes obvious (Belassi and Tukel 1996, Icmeli-Tukel and Rom 2001). Meredith and Mantel (1995) argue that the project manager should have both technical and managerial skills, which implies that he or she should be coming from middle to upper level management. The managerial skills include knowledge about motivation and so-called soft-skills (Hughes 2000). However, the project management skills as well as the experience of the project manager should not be underestimated (Kuprenas et al. 2000, McCray and Purvis 2002). Additionally, the Big Five traits play a crucial role in job performance. In Judge et al.'s (1999) study the authors affirm "that conscientious and emotional stability are the two Big Five traits most consistently related to job performance" (p. 637). All the same, Turner and Müller (2005) found out that nowadays individual competences, similar to the ones mentioned above, are not considered as a success factor on projects anymore. Although this study accepts the importance of these variables on project success (Dvir et al. 2006, Müller and Turner 2007), it focuses on the kind of behaviour that becomes visible during the project execution. A further evaluation as to whether the project manager actually shows the required competences is limited to the extent of motivational considerations. With the selection of this Unit of Analysis and in reference to the discovered symptoms, the critical role of the project manager can be verified in both projects of this study. In other words, due to the critical role of the project manager, both projects presented in this study would be incomplete without the view of the project manager.

The discussion in Chapter 10 further examines the differences and similarities between the two projects and the project management views.

8.3 Conclusion Project2

By giving the go-ahead for executing Project2, PM and PMtech took over the lead. At that stage both stakeholders had seemingly already recognised that Project2 was a challenge. PM's and PMtech's expectations became apparent by the change request of the commercial launch date; since the availability of the product was required for Christmas business, the commercial launch date was thus moved to December. In addition, several other issues, such as load balancing and recharge, had to be solved. PM and PMtech were successful in managing these issues by investing extensive overtime and weekend work to finally deliver the primary objective as required for Christmas business. This delivery was celebrated as a success. The price for this success is described in the previous Chapter, the Holistic View of Project2.

The fourth Unit of Analysis delivers a different perspective in the form of not displaying a form of resistance. Additionally, this Unit of Analysis contributes a further crucial element to this study, which is the importance of the project manager. Similar to Project1, the project manager was identified as essential for the overall project outcome. This finding supports related research, which focuses on the importance of the project manager for project execution and outcome (e.g. Belassi and Tukel 1996, Jiang et al. 1998, 2001, Icmeli-Tukel and Rom 2001).

9 Analysis of the IT Project Process Model

9.1 Summary

This Chapter summarises the findings of the previous Chapters by developing a model that assesses IT project processes, the IT Project Process Model. With the intention to speculate on the question why IT projects seem to fail, the Model is tested on the basis of the evidence collected.

9.2 The IT Project Process Model

The Model (Figure 2) was developed to demonstrate a generic approach, which intends to complete the Comprehensive Problem-solving Picture for IT projects. The applicability of this Model is tested by means of utilizing the presented evidence of the previous Chapters 5 to 8. It would appear that if the central hypothesis of this study, which can be defined as the integration of a lens of motivation, is feasible, then it can be assumed that this Model may be able to provide recommendations for all assessed Units of Analysis. These recommendations are aimed at explaining the individual underlying cause, which can be predicted as the responsible factor for the resistance of the involved stakeholders. The following Figure 10 summarises the IT Project Process Model:

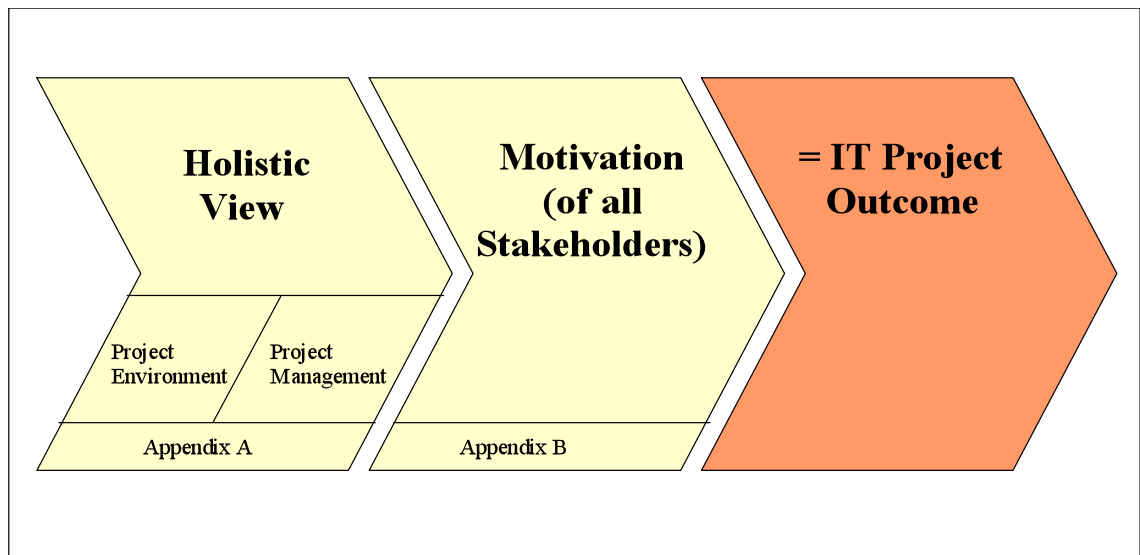


Figure 2) The IT Project Process Model

9.3 Holistic View

Based on the analysis of the project risk research studies, the requirement to include the holistic view into an IT Project Process Model becomes evident. The socioeconomic environment, organizational environment and applied project management methodology were identified as fundamental elements of this holistic view. The discussion of the academic literature in Chapter 3 contributed to the integration of the organizational culture. Chapter 4 elaborated the simplified Model of IT Project Process with the result that - due to the external control over these influences - the organizational culture, socioeconomic and organizational environment were grouped up with the project environment and the separated applied project management (methods) - due to the project manager's control over this influence. If the discussion of the requirement to include the Holistic View is feasible, the collected evidence for the Holistic View has to show the impact on the building block(s) of the involved stakeholders. Only if the project environment and applied project management have an impact on the building block(s) of the involved stakeholders, these subcategories are required in the IT Project Process Model. The following analysis is based on the collected evidence. Chapters 5 and 7 present the evidence relevant for the Holistic View of both projects as a Template Analysis. The same approach offers the relevant evidence for the Motivation of the selected Units of Analysis in Chapters 6 and 8.

9.3.1 The Project Environment

The first category within the project environment is the organizational culture.

The Organizational Culture

In Project1 and Project2 some situations were identified as being externally controlled by the organizational culture. Therefore, these situations were filtered in a way so that the resulting behaviour of the individuals involved does not necessarily express the individual's own rationale⁴⁵.

⁴⁵Ryan and Deci (2000) explain with the help of the Organismic Integration Theory (OIT) the effects of internalisation of behaviour in Chapter 3.4.

For the purpose of this study, the identified organizational culture is filtered and seen as a first indication. Following the principle of triangulation, further evidence is required to show that this filtered behaviour is based on the individual's own rationale. It can be deducted that this behaviour destroys the intrinsically perception of an individual. This evidence – if present – is included in the motivational analysis⁴⁶. The following discussion examines whether the organizational culture is required in an IT Project Process Model - as discussed in Chapter 3. This requirement has to be justified by presenting evidence, which is (a) important for drawing conclusions or (b) not available in the motivational analysis of the stakeholders.

‘Scapegoating’

In Project1, the organizational culture ‘Scapegoating’ forced the project stakeholders to collect evidence and prepare for an imminent punishment. All stakeholders in Project1 behaved accordingly and, for instance, collected evidence for their defence (Bonazzi 1983, Girard 1986, Daniel 1998)⁴⁷.

The effect on, for example, the building block ‘Providing Security’⁴⁸ is for all involved stakeholders that this building block is not supporting an intrinsically rewarding environment. In other words, this behaviour forced by the organizational culture, ‘Scapegoating’, is evidently not based on the involved stakeholders’ own rationale and therefore not internalised. Owing to the available evidence in the building block ‘Providing Security’, the influence of ‘Scapegoating’ is verified and thus filtering of ‘Scapegoating’ by the organizational culture is not required.

Meeting Culture

The second organizational culture in Project1 is the ‘Meeting Culture’⁴⁹. In contrast to ‘Scapegoating’, no evidence was found in which way this organizational culture may influence a building block.

⁴⁶The Integrative Model was selected for a motivational analysis in Chapter 3.3.2.

⁴⁷The collected evidence shows the awareness, the collection and preparation of evidence, avoidance of responsibility and compliance of all stakeholders in Project1. This evidence is presented in Chapter 5.5.1.

⁴⁸Appendix F presents an overview of how the involved stakeholders perceived the building blocks of the Integrative Model.

⁴⁹Chapter 5.5.1 explains the involved disruptive behaviour and the understanding of this behaviour.

As could be seen in the observation, User01 and User02 complained about the missing standards in the building block ‘Fostering High, Non-comparative Standards’, but their critique was directed towards the information distribution - as explained in the building block ‘Providing Information’ and the right to make choices in the building blocks ‘Delegating Authority’ and ‘Providing a Clear Purpose’. Further critique by other stakeholders, which directly focuses on the meeting culture, could not be observed. The observed behaviour of User01 and User02 during the meetings supports this argument, as they behaved akin to the other participants. These findings indicate that the behaviour, related to the ‘Meeting Culture’, was based on the respective user’s own rationale and therefore can be seen as internalised. The stakeholders’ disruptive behaviour has to be filtered, because it is based on their own rationale and does not destroy their intrinsic motivation. This clearly fulfils the requirement for filtering the meeting culture as an organizational culture.

‘Green Landscape’

In Project2, the organizational culture required green and yellow status reports⁵⁰. Until the end of September, PM complied with this requirement. Even when having acquired a better knowledge, PM accepted the organizational culture and presented only green and yellow status reports. Starting in October, PM received the authority to report a red status, which he actually did. Despite his increased state of awareness, PM complied with the organizational culture ‘Green Landscape’ and no further evidence was collected, which shows clearly that this organizational culture was limiting his intrinsic motivation until the end of September. Therefore, the conclusion can be drawn that PM internalised this company culture, which again fulfils the requirement for filtering this situation as an organizational culture.

Conclusion: Organizational Culture

The first behaviour described within the organizational culture, the ‘Scapegoating’, was not based on the individuals’ own rationale and therefore could not be defined as internalised. The further required evidence to fulfil the requirement of triangulation is presented in the Appendices for all involved stakeholders in Project1. As a result, the

⁵⁰The occurrences were listed in Chapter 7.4.1.

filtering of the ‘Scapegoating’ actions by the organizational culture is not required, however the related evidence for all stakeholders is considered in the building blocks. Considering all factors, the impression could arise that ‘Scapegoating’ could be deleted from the organizational culture. However, this is not possible due to the particular research process of this study. The collection of evidence, guided by the conceptual framework Holistic View, had been applied before the analysis was completed, and consequently all organizational cultures had to be recognised first. This is the reason why ‘Scapegoating’ is included in this project research process. The integration of the organizational culture in the IT Project Process Model is supported by the ‘Meeting Culture’ in Project1 and the ‘Green Landscape’ in Project2. In both examples, the understanding of internalised behaviour, which is not destroying intrinsic motivation, is required to provide an objective holistic view. Otherwise, the impression could be gained that the destructive behaviour during the meetings in Project1 and the green status reports in Project2 would have limited the intrinsic motivation of the involved stakeholders. Yet, this was apparently not the case - no evidence could be collected which gives evidence that this behaviour destroyed intrinsic motivation. Based on the evidence collected, it becomes evident that the organizational culture requires integration into the IT Project Process Model. Hereby, the impact of the organizational culture on the behaviour can and has to be differentiated from behaviour based on the individual’s own rationale as well as behaviour which is not based on the individual’s own rationale. This aspect is clearly the first important finding, which can advance the introduced project risk research studies, because all recommendations in the introduced project risk research studies, which are focused on internalised behaviour, can evidently not significantly improve the intrinsic motivation of the stakeholders and thus the project outcome. In other words, the effort invested in these recommendations to dramatically improve the project outcome is potentially wasted. In Project1, for example, all recommendations which are intended to change the organizational culture ‘Meeting Culture’ and thereby significantly improve the project outcome are wasted, because by changing the meeting culture, the intrinsically rewarding environment – the underlying cause explanation - is undoubtedly not improved. By way of illustration, User01 and User02 would still complain about the lack of freedom to make informed choices, which finally lead to a major delay.

In Project2, when PM was expecting the go-ahead to communicate a red project status, this would also ultimately not dramatically have improved the already intrinsically rewarding environment for him. The outcome of an even more fragile IT landscape would not have been changed, because PM would have deployed the same workarounds as he already did to deliver a successful project from the perspective of the operating company.

Socioeconomic Environment

The second category of external influences is the socioeconomic environment.

Project1

The socioeconomic environment is not considered in Project1. Of course, the most obvious influences on Project1, which originate from the socioeconomic environment, are the legal regulations concerning the human resources working in the involved data centres. To achieve the required cost reductions, Vendor-Company01 had to reduce 22 data centres to two and also to dismiss the involved human resources accordingly. The RfP clearly requested that the selected vendor had to take over human resources and to consolidate the data centres afterwards. In other words, local CIO tried to transfer this socioeconomic environment issue onto the vendor. In the BAFO, Vendor-Company01 delivered most of the information required, but the requested human resource details, for example, were missing. The issue 'human resources' was raised occasionally in the work meetings between PM and Vendor01 and Vendor02, however, it was never answered exhaustively. In other words, the socioeconomic environment issues could not be transferred onto Vendor-Company01. Project1 did not take any other issues into consideration.

Project2

Project2 also completely ignored the socioeconomic environment. This included a current legal discussion, which was followed by the internal customer of Project2. The internal customer considered the possible outcome of this discussion by integrating the required flexibility, which was required finally. Without this flexibility, another change request would have had to be prepared and the complete project would have had to be adapted. Due to the number of change requests, an earlier delivery date, a third test

phase and extensive overtime and weekend work, this additional change request would have undoubtedly influenced Project2.

Conclusion: Socioeconomic Environment

Summarising the situation and circumstances of both projects, the socioeconomic environment was evidently not appropriately considered (Table 12 in Appendix E). Nevertheless, no significant impact could be observed, because in Project1 this situation had no impact during the observation⁵¹, and in Project2, since the internal customer followed the current legal discussion and considered the necessary flexibility in his requirements, this finally prevented a negative impact. This is the reason why no evidence is available which justifies a negative impact on the motivation of the involved stakeholders. On the other hand, there is also no evidence available, which justifies that the socioeconomic environment may not have a subsequent impact onto the motivation of the involved stakeholders as in Project1. Yet, an impact of the socioeconomic environment on the motivation of the involved stakeholders can only be expected, because it can be assumed that in both projects the socioeconomic issues would have had an impact on the already tight schedule⁵². In Project1, the legal discussions within the operating company and, in Project2, the enhancement of the functionality of the solution would have certainly added pressure. This level of pressure is expected to have had an effect on the motivation of the involved stakeholders, for example, the project managers of both projects. In view of the arguments and observations above, and due to the fact that the analysis of project risk research studies also includes the socioeconomic environment, the socioeconomic environment should be considered in the IT Project Process Model.

⁵¹In June +01, Project1 vanished as a sub-project into a new program. Until this point the socioeconomic influence had no impact on the project.

⁵²The project outcome of Project1 in Chapter 5.4 and Project2 in Chapter 7.3 show tight schedules in the section 'Meeting Schedule Objectives'.

Organizational Environment

The organizational environment can be seen as the level of maturity the operating company demonstrates when supporting a project execution, which is argued to be low and the importance underestimated (e.g. Blomquist and Müller 2006, Crawford 2006). For the assessment of the level of maturity, the PFM Model (Toney and Powers 1997) was selected and modified based on the findings of Motivation discussed in Chapter 3⁵³.

Project Strategy

Both operating companies were dependent on projects in order to successfully adapt to the changing environment and to stay competitive. Nevertheless, the project strategy present in both operating companies does not reflect this situation, as the collected evidence behind clearly shows. Although the operating company of Project1 basically fulfilled one key success factor, owing to the standard organizational structure, no other key success factors supporting project execution could be seen as completed (Table 12 in Appendix E). Regardless the low project strategy maturity in both operating companies, the impact on the two projects is evidently distinct. In Project1, the lack of the recommended organizational structure⁵⁴, strategic communication⁵⁵, performance measurement⁵⁶ and core competency integration⁵⁷ had a negative impact on how, for example, PM perceived her intrinsically rewarding environment.

⁵³Based on the discussion in Chapter 3.2.2, the good practice example ‘Initiate Goal-Based Pay Programs’ and ‘Expand Project Performance or Team-Based Pay’ for the key success factor’ were excluded.

⁵⁴The PFM model recommends two structure core best practices for implementing the organizational structure: report to the senior-level executive and multifunctional responsibility.

⁵⁵Within the strategic communication, the alliance methods are the core best practice to communicate the benefits of project management function and to meet organizational objectives.

⁵⁶Key success factor number three recommends measuring the performance of projects and the impact of project outcome on the organization’s bottom line as well as the ability to achieve the project objectives.

⁵⁷The last strategic key success factor is the core competency integration. This key success factor recommends integrating the project management methodology as a core competence in the company. In that sense, the deployment of project management methodology is expected throughout the involved project stakeholders from top management to an operational level. The pure knowledge of a project management methodology is not sufficient to achieve this purpose.

The building blocks ‘Delegate Authority’, for example, could have been supportive to an intrinsically rewarding environment for her within a mature project strategy environment. By improving the organizational structure, Initiator would have – at least - known who is managing his most important project, and by consequently integrating project management as a core competency, Initiator would have been requested the project status reports of PM⁵⁸. Like this, the urgent requirement, which is clearly stated in the status reports of PM, to improve the HR situation would have become clearly visible for Initiator. Of course, Owner should have communicated this urgent need to Initiator, but presumably during and after the two interviews with Owner, Owner was not able to present any evidence that he had communicated this urgent need appropriately to Initiator. Furthermore, Initiator could not demonstrate during the interview that he was actually applying his project management knowledge. This finally led to the conclusion of the overall lack of integrating project management as a core competence. Considering the achieved visibility and acceptance of the status reports from PM, Initiator could have provided the required resources earlier than he did. This improved maturity would have positively influenced the building block ‘Delegate Authority’ for PM. With additional resources at hand, PM had planned a suitable project office system, which would have been able to produce the appropriate project management documents. These documents are the information User01 and User02 were asking for in their building block ‘Providing Information’. In other words, this example elucidates the measures that could have improved the project strategy maturity, and thus this could have contributed to the enhancement of several building blocks for the various stakeholders in Project1. Although the project strategy of both operating companies appears to have had a similarly low level, the impact on, for example, the project managers was quite different. Table 16 and 17 provide a comparison between PM in Project1 and PM in Project2 and their perception of their intrinsically rewarding environment. Whereas PM in Project1 did not perceive an overall intrinsically rewarding environment, PM in Project2 did perceive an overall intrinsically rewarding environment.

⁵⁸In the interview Initiator was not able to answer the question who was managing his most important project and was also not able to present one project status report.

In Project2, PM was not allowed to present at the substitute meeting for a steering committee⁵⁹. Nevertheless, PM perceived the building block ‘Delegate Authority’ as intrinsically rewarding. Most notably, PM took on the authority due to his contacts within the operating company and directly communicated with a top manager where necessary - for example, the request for an initial payment, the signed purchase order and the additional payments were only possible due to this fact. As a result, PM perceived the building block ‘Delegate Authority’ as supportive towards an intrinsically rewarding environment - within the limits described in the project management handbook. The absence of the requested steering committee apparently did not destroy or diminish this feeling⁶⁰. This discussion of the project strategy environment offers another finding, which extends the current findings of the introduced project risk research studies. Both operating companies evidently did not have a project strategy maturity, which could support the project execution. Despite the similar situation, the impact on how the individual stakeholders perceived this intrinsically rewarding environment is distinct. PM in Project1 perceived a negative impact, whereas PM in Project2 did not perceive this negative impact. Based on these findings, the conclusion can be drawn that the lack of project strategy maturity can have an impact on the project, however this may depend on how the individual stakeholder perceives this impact on his intrinsically rewarding environment, which in turn becomes transparent by looking through the lens of motivation. In Project1, the recommendation to improve the project strategy maturity so that Initiator would have supported the building block ‘Delegating Authority’ for PM, is expected to have also a positive effect on building blocks of other stakeholders as discussed above. In Project2, the introduced project risk research studies would appear to have offered the same recommendation due to the lack of integrating a human-centred philosophy. Without looking through the lens of motivation, the lack of the maturity of the operating company can be clearly identified and appropriate recommendations offered. In Project2, these recommendations would have had however no effect on the project outcome – alike Project1. All effort invested would have been potentially wasted, because PM in Project2 would presumably not have perceived his building blocks differently. Other recommendations, referring to the lack of project strategy environment, would most probably also not have lead to an

⁵⁹PM and PMtech frequently requested to setup an STC for Project2, but their request was ignored by

improved intrinsically rewarding environment for PM, because he already did perceive all four intrinsic rewards. In other words, all recommendations referring to the project strategy environment would not have improved the situation for PM and also not delivered a fundamental improvement of the project outcome.

In summary, the hypothesis that a low project strategy maturity always has a negative impact on the project outcome cannot be verified at this stage. Furthermore, recommendations based on a conclusion, drawn without the integration of a human-centred philosophy, involve the risk of being a waste of time and resources, because of not being able to solve the underlying cause for the involved stakeholders. This appears to be the reason why recommendations, which in actuality can significantly improve the project outcome, should consider the human side in projects.

Project Management Professionalism

The key success factors for project management professionalism were only partly completed. In particular, only those key success factors, which were based on standard processes, were completed. For example, the first key success factor 'Pay' was supported by both operating companies, because the recommended good practice examples were in line with their applied payment philosophy. The key success factor 'Making Project Management a Career Track', which was achieved in Project2, was based on the commonly deployed career track within this particular operating company. The operating company of Project1 had already introduced a career track for project managers in external business in some of its divisions and for internal project managers a similar career track was in the making. However, this career track had not been installed for PM in Project1. Those key success factors, which require a more specialised knowledge in project management like 'Selection and Retention', 'Nurture Competence' as well as 'Performance Evaluation', do evidently not support project management professionalism. Of course, the operating company of Project2 offered a basic training in project management skills to 'Nurture Competence' as long as the

ProgMgr.

⁶⁰A further discussion of intrinsic motivation as a trait-like characteristic (Amabile et al. 1994, Eccles and Wigfield 2002) was not endeavoured in this study due to a lack of exigency as well as sufficient research in a work environment.

financial possibilities were available; however, a further investment was not made. Nevertheless, the collected evidence supporting the building blocks does not visibly show a negative impact of these key success factors on the intrinsically rewarding environment or the project outcome. The key success factors ‘Critically Analyse Alternatives and Opportunities’ and ‘Honesty and Ethics’, did also not support the project management professionalism, but had a strong impact on the project outcome as well as the building blocks. The decision to deploy a vendor had already been made in both projects by the management and alternatives and opportunities had not been critically analysed. Therefore, the procurement processes were excluded from the following analysis of the applied project knowledge management areas. The key success factor ‘Critically Analyse Alternatives and Opportunities’ did in both projects not have any impact on the behaviour of the management, because its decision-making processes were apparently already internalised by the project stakeholders. However, this decision may have influenced the course of both projects. In Project1, an alternative to Vendor-Company01 could have been used, which was not a part of the operating company’s internal organizational culture. This alternative vendor would have presumably executed the project in the same way as with other customers and would neither have participated in the organizational culture of ‘Scapegoating’ nor in its meeting culture. As a result, the involved ‘Scapegoating’ would in all probability not have had the noted effect. In Project2, the project stakeholders were aware of the quality challenges of the selected vendor based on the experiences made in the previous two projects. Yet, as a result of the management’s decision to select the same vendor, the project stakeholders had to cover up this inadequate decision by investing extensive overtime and weekend work. In other words, the management’s decision to choose a certain vendor ignoring the key success factor ‘Critically Analyse Alternatives and Opportunities’, had a negative impact on both projects. Owing to the internalisation of the involved stakeholders, that important decisions were made solely by the management, no direct impact on the building blocks of these stakeholders could be observed.

The key success factor ‘Honesty and Ethics’ can be seen as different to the key success factors discussed so far. ‘Honesty and Ethics’ had an effect on the building blocks ‘Providing Security’ for all involved stakeholders in Project1.

Not only for the purpose of self-protection, but also for achieving their personal objectives, Vendor01, Vendor02, Vendor03, Owner and Initiator, utilised a wide variety of methods in Project1. These were methods such as hiding information, deploying tactics to secretly achieve personal objectives, or simply telling lies, which were administered with a doubtlessly strong impact on the project outcome. The required evidence is presented in the organizational culture 'Scapegoating', in which this behaviour was most likely created. The difference here to the discussion within the organizational culture is, that - within this key success factor - the involved stakeholders did not only collect evidence for their defence, but as well planned and deployed tactics to harm other involved stakeholders, which clearly interferes with an honest and ethical environment. In Project2, the apparent honesty in reporting was influenced and a 'prettified' status report was provided. Instead of a red status report, a dark yellow status report was provided. Of course, the, in fact, red status of the project did have in turn an impact on the project core team, which had to invest extensive overtime and weekend work to solve the issues which had caused this insufficient status. In the months after October, the influencing pressure of ProgMgr disappeared and PM was able to switch to a more honest reporting. As a result, it can be inferred that this particular key success factor changed for Project2 after October.

To sum up, no evidence could be found which shows a limiting impact of the key success factors 'Pay', 'Selection and Retention', 'Nurture Competence', 'Make Project Management a Career Track' and 'Performance Evaluation' on the building blocks for the two researched projects. The key success factor 'Critically Analyse Alternatives and Opportunities' differentiates from the others key success factors because of its impact on the overall project outcome. Despite this clearly important impact on the project outcome, the involved stakeholders internalised (accepted) the management decisions of the operating companies with the effect that the building blocks were not influenced. This key success factor demonstrates that internalisation has to be considered for all key success factors and not only for the discussed organizational culture. The key success factor 'Honesty and Ethics' is described by Tony and Powers (1997) as of paramount importance. Project1 supports this finding, as can be seen from its impact on the behaviour of involved stakeholders and finally on the project outcome. In Project2, this

key success also manifestly had a direct impact on the project outcome in form of increasing the required budget. An impact on the building blocks of PM was modified after PM was allowed to report a red status report. Finally, the collected evidence highlights that the element 'project professionalism' is required in the IT Project Process Model (Table 12 in Appendix E).

Project Management Methodology

Project1 did not employ a mandatory project management methodology, even though an internal project management methodology was in preparation. Evidently, within the department NW a project management methodology was mandatory for Project2. The NWs internal project management handbook provided tools and techniques as well as references to other mandatory processes. This means that in particular the requirements for quality, change and procurement management were defined by other internal processes. As for the procurement, a project manager of NW had to deliver the required input, however she or he was not in charge for the complete process. Therefore, this project management knowledge area was excluded from further assessment in this section. The project management handbook provides the tools and techniques for scope, cost and communication management. Furthermore, integration and risk management tools and techniques are provided on a basic level. Time and human resource management tools and techniques are however not suitably provided (Table 13 in Appendix E). The project management methodology is the third part of the selected PFM to assess the maturity of operating companies. Similar to the first two parts, project strategy and project management professionalism, the project management methodology was integrated in the conceptual framework to provide a holistic view on the researched project. Based on the collected evidence, the previous two sections showed the influence of the project strategy and project management professionalism on the building blocks of the involved stakeholders. Consequently, they have to be integrated in the IT Project Process Model.

It can be assumed that the availability of a project management methodology might contribute to the maturity of a company to support a project execution⁶¹, however within the context of this study no evidence could be found which shows the direct influence of the availability of a project management methodology on the building blocks of the involved stakeholders. In other words, the plain availability of a project management methodology seems to have no impact on the behaviour of the involved stakeholders. The impact of the project management methodology on the other hand depends on how a project management methodology was applied to a project - which is discussed in perspective of Project1 and Project2 in the following Chapter.

For example, in Project1, a project management methodology was not made available, and PM was visibly aware about her lack of project management experience and knowledge. Nevertheless, PM prepared some planning documents; she had the experience and knowledge to prepare for a meeting, compiling the meeting minutes and distributing them. Despite this basic knowledge, PM did neither maintain the planning documents nor did she provide the requested information level before and after meetings to, for example, the users of Project1. The maintenance was stopped after PM's project plan was not accepted in the STC meeting. During and after the STC meeting Owner did not invest the required trust, which again noticeably changed the attitude of PM⁶². This example elucidates that even without the availability of a project management methodology and profound project management knowledge, project management tools and techniques can be applied, yet based on the business knowledge and experience of the stakeholder.

⁶¹In the study of Tony and Powers (1997) the project management methodology is a recommendation, which is not supported by evidence unlike the project strategy and project management professionalism.

⁶²These occurrences are described in Chapter 6.4.1.

In Project2, the project management methodology did not provide a strong support for, for instance, time management. Despite this weakness, PM applied an excellent time management. Furthermore, PM was able to provide the requested initial payment, signed purchase order and additional payments for Vendor-Company01⁶³ - a process PM was actually not responsible for. Yet, although PM was not responsible for the procurement process, he successfully managed these exceptions to the rule. Another exception PM was given, was the commitment of the senior management toward the manual workarounds. However, as can be seen from observation results, the quality process as described in the project management handbook did not support these manual workarounds. These exceptions seemed essential for PM in order to deliver the primary project objective - even for a high price, a price the operating company and the senior management had to pay⁶⁴. The specific situation in Project2 demonstrates that the availability of a project management methodology does not give evidence in regards to the effect on the building blocks and consequently on the project outcome. This shows that exceptions can change the perception even when an excellent and mandatory project management methodology was employed. Based on this insight, the conclusion can be drawn that an available project management methodology may contribute to a mature company environment in order to support project execution, however does not manage to outline clearly the impact on the building blocks of the involved stakeholders. As the evidence shows, (a) the lack of an appropriate project management methodology can be substituted by business knowledge and experience, (b) exceptions to a mandatory project management methodology can be granted and (c) the motivation of a project manager influences how he or she may apply these project management tools and techniques.

Consequently, the assessment of the availability of a project management methodology is not required in the IT Project Process Model. Solely the applied project management methodology seems to provide the required insight.

⁶³The details and evidence are presented in Chapter 8.2.1.

⁶⁴Chapter 8.2.1 provides evidence for manual workarounds, which were accepted by the top management.

Conclusion: Organizational Environment

The evidence presented for the two projects researched, highlights that the project strategy and project management professionalism contain project key success factors, which directly influence the building blocks of the involved stakeholders⁶⁵. This insight is only possible due to the qualitative approach of this study, which, on the other hand, delivers the limitation in form of the number of units of analysis. As the discussion in the Chapter on research design presents, this study intends to deliver a new direction, which can be further developed by more quantitative studies. As a result, the project strategy and project management professionalism are integrated in the IT Project Process Model. Furthermore, the analysis of the project delivery elucidates that a low project strategy maturity has not always a negative impact on the project outcome. Another important aspect was outlined by the analysis of the project management professionalism which is that internalisation has to be considered not only within the organizational culture - even the lack of a key success factor can be internalised without an effect on the building blocks. Whereas the project management methodology might be required to describe the level of maturity of an operating company in supporting a project execution, the analysed evidence argues that it may not be required in the IT Project Process Model. That is why the project management methodology (availability of templates) is excluded in this Model.

9.3.2 Applied Project Management Methodology

The second part of the Holistic View is the applied project management methodology, which is under the control of the project manager. Owing to the lack of a global project management body of knowledge and the intention to reach a wide audience, a project management methodology with a high circulation was selected. This methodology was updated in consideration of the current discussions⁶⁶.

Based on this project management methodology, the collected evidence is structured and summarised in Chapter 5 for Project1 and Chapter 7 for Project2. The number of

⁶⁵Table 12 in Appendix E provides an overview.

documents collected in Project1 exceeded the number of documents collected in Project2. Yet, the documents in Project1 were not able to satisfy the requirements for the ten project management knowledge areas. This means that either no documents at all or not the appropriate ones could be found in Project1 - 'not appropriate' describes the fact that these documents delivered the required content only to some extent or that they were not maintained. For example, the scope management for Project1 was: The initiation process was to be completed by delivering a project charter, an assigned project manager and some constraints and assumptions in different documents. Yet, except for the project charter and an RfP, no appropriate scope statement, supporting details or scope management plan was made available for the scope planning. On account of the lack of these documents, the building block 'Providing a Clear Purpose' for the stakeholders of the units User and Vendor shows that the stakeholders repeatedly started a scope discussion in meetings. A further scope definition including a WBS was also not conducted. The availability of a draft version of a WBS, which was not completed and deployed, cannot be seen as sufficient in supporting a project recommendation. On the other hand, the formal acceptance of the scope could be assumed due to the participation of the stakeholders in the project. Nevertheless, the confusion among the direct stakeholders concerning a detailed scope increased due to the lack of scope change control. Even PM was not able to follow the ideas and changes of Owner, what became evident in the STC meetings, which in turn influenced how PM perceived her building block 'Providing a Clear Purpose'. This may be the reason why the scope management knowledge area was assessed as inappropriate for Project1. The remaining project management knowledge areas were also assessed as inappropriate – except for the procurement management, which is excluded. Apart from the lack of a mandatory project management methodology, the management of the operating company of Project1 did also not request appropriate project management documents. Although the users requested an appropriate execution of a project management methodology and Owner as well as Initiator claimed to have sufficient experience in project management, no member of the management of the operating company requested appropriate project management documents, such as an appropriate scope

⁶⁶Chapter 2.4 discusses the integration of change management and physical environment establishment, which were integrated into the project management methodology for this study.

document, status reports or project schedule. The provided documents were simply accepted by the management. Project2 applied a project management methodology and was able to deliver the primary project objective, as defined by the operating company. Of course, the ten project management knowledge areas, in particular, were deployed on different quality levels. Especially the aspect of time management, which was not described in depth in the project management handbook, was masterfully deployed. In particular the project schedule was created and maintained by the project core team. As a result, no repeating discussions about the scope or approach could be observed. Apart from the human resource and risk management, all other project management knowledge areas were deployed. However, some exceptions were made, which did not interfere with the building blocks. For example, the final (internal) customer acceptance for Project2 was signed in November, only some weeks before the delivery and the cost management for internal resources had not been conducted as required.

To conclude, the findings of the two researched IT projects in this study call attention to the premise that the applied project management knowledge areas have a significant effect on the building blocks. Therefore, this aspect is included in the IT Project Process Model⁶⁷.

9.3.3 Summary: Holistic View

The previous Template Analysis in Chapters 5 and 7 shows the requirement to integrate a Holistic View into the IT Project Process Model. However, it is evident that it also may require adjustments. With reference to the analysis of the organizational culture, insight could be gained into the behaviour patterns related to the ‘Meeting Culture’ in Project1 and ‘Green Landscape’ in Project2, which both require filtering. Only by filtering related internalised behaviour, a clear view of the individual’s own rational can be expected to be gained. Otherwise the risk remains that recommendations are provided which focus on internalised behaviour. As argued, the effort for these recommendations, which should significantly improve the project outcome, is potentially wasted.

⁶⁷Table 13 in Appendix E provides an overview.

As in terms of the socioeconomic environment no clear evidence could be collected that could support its integration into the IT Project Process Model. Nevertheless, based on the study's findings claiming the possibility of influencing the building blocks, the socioeconomic environment is integrated. The project strategy and project professionalism were justified to be essential requirements within the organizational environment. Especially the evidence analysed in terms of the project strategy showed clearly that a low project strategy maturity does not automatically have a negative impact on the project process. Furthermore, the evidence analysed in terms of the project professionalism confirmed that the effect of internalisation has also to be considered within the key success factors. The project management methodology requires extensive adjustments, and thus it is excluded in the IT Project Process Model. Both operating companies showed a surprisingly low maturity in supporting the project execution. Based on this finding, Hillam and Edward (2001)'s argument that many organizations do not critically examine the cause for project failure and that this prevents them from learning from their mistakes is supported. On the other hand, the results of Standing et al. (2006) in their study on 'the attribution of success and failure in IT projects' requires further discussion, because the conclusion that executive IT managers have a high maturity in IT project management in form of (a) considering environmental factors contributing to success and (b) being aware of context and importance of wider factors is not supported. Maybe the crucial difference can be found in the research design, because the findings of Standing et al. (2006) are based on a questionnaire. Hence, the respondents answered honestly what they feel and know, however, this differs from reality, because this knowledge is not deployed⁶⁸ - otherwise the executive IT managers in both operating companies would have showed a higher maturity in supporting the project execution. The second part of the Holistic View is the applied project management methodology. Based on the findings of the comparison of the two projects, it can be hypothesised that, for example, the lack of an appropriate project scope management caused extensive discussions directly impacting the behaviour of the involved stakeholders, whereas in Project2 the availability of a scope management did by far not have this expected negative impact.

⁶⁸Chapter 6.3.4 discusses the appropriateness of a questionnaire.

To sum up, the analysed evidence shows clearly the impact of the Holistic View on the building blocks of the involved stakeholders. Consequently, the feasibility of the Holistic View - as described in this Chapter - in relation to the IT Project Process Model can be justified.

9.4 Motivation of all Stakeholders

As illustrated in Chapter 6, User01 and User02 evidently expressed their discontent at work by rejecting the user-based pricing model. Besides other identified forms of resistance as suggested in Chapter 6, this rejection forced a delay by six months. Furthermore, with the integration of a human-centred philosophy the underlying cause of their behaviour may be explained more clearly. This explanation strongly supports the speculation that the project may be meaningful for them, however, on the other hand a missing sense of choice, competence and progress might have also contributed to their behaviour. Vendor01 and Vendor02, even when in a difficult position, who wanted to sign a contract, were also able to express their discontent at work. Based on the assumption of an underlying cause explanation, the lack of a sense of choice, competence and progress were identified, which caused the observed behaviour of deploying different tactics to gain the required protection for the expected punishment. From Vendor01's and Vendor02's perspective, their behaviour was obviously successful, because they won the project and were not punished. PM, on the other hand, openly expressed her frustration, because she suffered from the lack of all senses for an intrinsically rewarding environment. Her lack of interest in Project1 and her wish to leave Project1 becomes understandable when taking into consideration the provided underlying cause explanation. Owner evidently perceived a sense of meaningfulness and choice, which seemed to be based on his understanding of the project objective and possibility to make informed choices; hence, Owner tried to push Project1. Influenced by the project environment, Owner displayed a behaviour, which did not support achieving the accomplishment rewards. As a result, Owner visibly projected his 'bad mood' onto other stakeholders and acted accordingly. Nevertheless, Owner was not able to deliver an actual successful project outcome, and was also not successful in defending his positing in the punishment process.

For the stakeholders in Project1, the element ‘Motivation’ seemingly provided the required underlying cause explanation for their behaviour. Based on this assumption, the behaviour of all stakeholders – from their point of view – becomes logical. The stakeholders of Project1 did apparently not perceive an intrinsically rewarding environment. The findings of Project2 elucidate that the developed IT Project Process Model may also be able to describe the behaviour within a project setting, in which the selected stakeholders perceive an intrinsically rewarding environment. The stakeholders of the fourth Unit of Analysis perceived an intrinsically rewarding environment. In their view, supported by the project environment, which can be identified with the management of the operating company, they delivered a successful project. Consequently, it becomes evident that an improvement of the missing building blocks cannot significantly improve the outcome of a project. This situation is explained by the element ‘Motivation’, and this in turn shows why PM and PMtech presumably adapted to the project environment.

To summarize, the lens of motivation seemingly elucidates the underlying cause for the behaviour of all selected stakeholders. This hypothesis can be derived from the collected evidence and presents a transparent picture of the stakeholders’ behavioural patterns – regardless of their role, personality and project setting. Nevertheless, this explanation does definitely not prove to be sufficient to complete the Comprehensive Problem-solving Picture for IT projects due to the existence of the second, yet unanswered, question.

9.5 For Improvement of the Project Outcome

The following discussion seeks to answer the second question by exploring possibilities of improving the IT project situation. Based on the achieved better understanding, and by looking through the lens of motivation, recommendations, which focus on naming the underlying cause for the selected stakeholders, are hereby considered.

9.5.1 Unit 1: User

User01 and User02 perceived visibly a feeling of meaningfulness, which was worth their time and energy. On the other hand, the lack of a sense of choice contributed to the disappointment of User01 and User02, because - as STC members - they were not really steering the project. The combination of perceiving a sense of meaningfulness and also at the same time a lack of a sense of choice led presumably to the behaviour that both users started fighting for their freedom to make informed choices. This finally escalated in December in a rejection of the suggested user-based pricing model. The implication of this finding directly answers to what could be done to improve the situation. That is to say the results provide the information required for a STC meeting and the freedom of the STC members – in this case the users – to make choices. To be more precise, the tasks have to support the building blocks ‘Providing Information’ and ‘Providing a Clear Purpose’ for informed choices and the building blocks ‘Delegating Authority’, ‘Demonstrating Trust’ and ‘Providing Security’ for the freedom of choice. The recommendation was to provide the requested working documents earlier than December. By providing the working documents with the detailed explanation of the user-based pricing model as well as by accepting the authority and by demonstrating trust, the user-based pricing model would have been discussed already in August after the first STC. An early and honest discussion of the applicability of a user-based pricing model would have led to one of the following two possibilities. First of all, an early discussion would have given four to five months more time to define a new and acceptable pricing model. Second of all, by creating a sense of choice, only some changes might have been required to accept the suggested user-based pricing model. This second implication is based on the assumption that the users did not know all details of this model, because the provided written details do evidently not answer all

questions and the open questions were not discussed honestly. As a result, an appropriate pricing model could have been discussed already in August, thereby providing sufficient time to finalise the model until the milestone 'sign-off FC' was due. The integration of a human-centred philosophy would have prevented the resistance of the users, which caused a delay by another six months. This change in supporting a sense of choice could be achieved by 'Providing Information', 'Delegating Authority' and 'Demonstrating Trust', three building blocks, which are influenced by the local CIO representatives in Project1. Although the building block 'Providing Security' in Project1 was influenced by the organizational culture of the operating company and therefore was difficult to be influenced by local CIO representatives, a sense of choice could have been created without this building block - as the assessment of Owner shows. Furthermore, these three building blocks would influence 'Providing a Clear Purpose' and other building blocks of a sense of competence and progress, because a change of the building blocks 'Delegating Authority' and 'Demonstrating Trust' requires accepting and improving the other criticism such as the lack of status information, general approach and level of project management methodology applied.

In summary, by providing the prerequisites for a sense of choice for the unit User in Project1, the pricing model escalation could possibly have been avoided.

9.5.2 Unit 2: Vendor

Until the selection of Vendor-Company01 as the vendor for Project1, the procurement rules of a win-lose negotiation had been accepted. After the selection, Vendor03 suggested to switch to a feasible work mode, which had been rejected by Owner. Chapter 7 provides the insight as to why Vendor01 and Vendor02 deployed two tactics, which have been classified as resistance towards the group objective of Project1. This resistance is based on the rationale of these two stakeholders to avoid the expected punishment for a project from which they had dissociated themselves because of the lack of an intrinsically rewarding environment. The common approach in projects is to react on symptoms (see Chapter 1), due to the lack of an integrated view of the situation, which could provide the complete picture. For the Unit Vendor following symptoms were observed: frequent project scope discussions, the approach of local CIO

was criticised and, for instance, a project schedule was suggested. Based on these symptoms, the common approach was to start a project scope discussion, to justify the selected approach and to provide a project schedule. In Project1, both discussions were started. Of course, for Owner the scope and the project approach were clear and required only an explanation. In Owner's view, a vendor had to accept the customer scope and approach. Detailed documents including a maintained project scope document or a project schedule were not delivered. In other words, a reaction based on the symptoms could be observed with the result that the underlying cause, the need for security to avoid punishment, for Vendor01 and Vendor02 was not resolved. The required security, in form of a signed contract with a clearly defined scope and approach as basis on which the required tasks could be performed on a level that progress is achieved, was clearly not provided. For Vendor01 and Vendor02 a sense of choice had to be created within Project1. Apart from the building block 'Delegating Authority', which was already supporting an intrinsically rewarding environment, the building block 'Demonstrating Trust' also had to be created to support free choices in Project1. Additionally, the availability of the rewards of the building blocks 'Providing a Clear Purpose' and 'Providing Information' created the required feeling of informed choices. For this purpose, Project1 had to deliver the requested written information such as a detailed project scope (without moving targets) as well as a detailed project approach in form of a project schedule (with an appropriate structure e.g. sufficient milestones), which was developed by the project team – including Vendor01 and Vendor02. In addition, trust had to be demonstrated by providing the required negotiated and signed LoI. Furthermore, unnecessary rules and controls had to be removed, for instance, by providing required information and supporting open discussions about the concerns of the stakeholders. One of these open discussions would have been the issue of restructuring costs. In an open discussion, based on the philosophy of a win-win procurement process, Vendor01 and Vendor02 would have been allowed to present the situation that the restructuring costs had to be covered by Project1, because otherwise Vendor-Compan01 would not have been able to achieve a profit with this project. As a consequence, a solution would have to be found by means of which Vendor-Company01 would have been enabled to achieve a profit.

By creating a sense of choice for Vendor01 and Vendor02, the deployed tactics in the background would not have been necessary. However, the accomplishment reward by a sense of competence and a sense of progress were seemingly required to show that Project1 delivered and that punishment may not occur. The availability of an appropriate detailed project scope and project schedule would have supported the building blocks 'Fostering High, Non-Comparative Standards', 'Building a Collaborative Climate' and 'Tracking Milestones'. Assuming a consequent deployment of a sense of choice in Project1, these three building blocks would have contributed to creating the accomplishment reward. Especially the building block 'Fostering High, Non-Comparative Standards' contributes to the two existing building blocks, which finally create a sense of competence. Furthermore, the building blocks 'Building a collaborative Climate' and 'Tracking Milestones' support the existing building block to finally create a sense of progress for Vendor01 and Vendor02.

In summary, with the consequent creation of a sense of choice for Vendor01 and Vendor02 in Project1, the observed effects of resistance and the resulting impact on Project1 could have been avoided. Within the section resistance of unit Vendor the DD outcome have been included due to their impact on Project1. This subproject DD was executed behind a 'Chinese Wall' within Vendor-Company01. Vendor01 and PMtech-Vendor were responsible for delivering the DD outcome. The meaningfulness of Project1 for Vendor01 and Vendor02 was justified, however the meaningfulness for the stakeholders involved in the subproject DD could not be provided. Due to its meaningfulness for Vendor01, his interest in delivering the DD outcome on time can be assumed. However, Vendor01 depended on the subproject team DD, which was executing the tasks necessary for delivering the DD outcome. This subproject team DD was not observed in this study and therefore no conclusions can be drawn as to why the DD outcome was delayed. It is one limitation of this study that the complete picture can only be provided if the involved stakeholders, in this case the subproject DD, can be observed.

9.5.3 Unit 3 PM, Project1

After the feasibility of Project1 had been confirmed, Initiator asked Owner to take over the project. In his role as project owner, Owner accepted PM as project manager. At this point in time PM perceived a sense of meaningfulness and a sense of choice. Utilizing this amount of motivation PM prepared a project plan, which considered her weakness - i.e. her lack of technical and project management knowledge. This project plan also included the resource requirements for the suggested work packages. The project plan was accepted by Owner and presented to the STC members. In this meeting, especially User01 complained about this project plan. During this meeting and afterwards, Owner did not support PM. Furthermore, Owner installed additional rules and controls, because in his opinion PM was incapable of managing Project1. What is more, Owner's behaviour of delegating supporting and auxiliary tasks to PM undermined her feeling of a sense of meaningfulness and choice. With the integration of a human-centred philosophy, the opportunity rewards could have been maintained for PM. Instead of letting down PM, Owner could have supported PM's approach, which he had already approved. In this case, a technical project manager with the required project management knowledge could have been assigned to Project1. Furthermore, the work packages would have been accepted and the required human resources provided. Whether User03 would have become technical project manager and whether the existing contracts with external resources would have been extended or whether the external resources would have been replaced is not essential for this argument, as long as any solution would have been found to execute PM's suggested project plan.

Consequently, the additional rules and controls would not have been introduced. In this case, the already present opportunity rewards could have been maintained for PM. In addition, the required resources would have been provided and a project management methodology would have been introduced, which again would have had a positive impact on the building blocks 'Providing Knowledge', 'Managing Challenge' and 'Fostering High, Non-Comparative Standards' for a sense of competence as well as on the building blocks 'Tracking Milestones', 'Providing Access to Customers' and 'Measuring Improvements' for a sense of progress.

Furthermore, based on sufficient resources and available knowledge, PM would have had a possibility to deploy her 'soft skills' to achieve progress. This progress would have made an impact on the remaining building blocks for the accomplishment rewards. Ultimately, an intrinsically rewarding environment could have been created for PM.

This change, i.e. the support of PM, would have required that Owner believed in her capability to manage Project1 successfully. Yet, Owner feared the punishment. Owner, a politician, who felt the opportunity rewards and was convinced of his implicit and explicit knowledge, only saw that the project plan had been rejected by the STC members. In his view, PM had failed in a task, which he – according to his opinion – would have delivered successfully. Owner knew that only by successfully delivering Project1, he could avoid punishment and support his career. Therefore, the conclusion can be drawn that Owner was convinced to act in the right way by supporting the opinion of (some) STC members. Owner projected his discontent at work onto PM and expressed his frustration in the form of aggression towards PM. In his way of thinking, PM was the cause of his 'bad mood' and thus Owner wanted to 'get rid of' PM. In this incident, the Integrative Model seems not able to provide an underlying cause explanation for Owner. This means that the Integrative Model does not provide the underlying cause explanation in form of one or more building blocks, which can provide the complete picture. The building block, which leads to discontent at work, remains invisible for Owner. The difference in this case is observed in the discrepancy between Owner's perception and a realistic judgement of a building block. This difference is though recognised for the building block 'Providing Knowledge'. Owner perceived the building block 'Providing Knowledge' as supportive towards an intrinsically rewarding environment, whereas the evidence collected shows that Owner did not have the implicit and explicit knowledge for managing or sponsoring a project such as Project1. Otherwise Owner would have requested appropriate project management documents, supported his project team and provided sufficient human resources. Of course, Owner was holding a position where this knowledge would be required and he could thus not confess that he lacked this kind of knowledge. In defence to this unpleasant thought Owner deployed an interpretive defence against this ego threat (Baumeister 1996). Within this self-regulating process, Owner was convinced to possess the required knowledge.

This difference is important to recognise for the purpose of delivering the complete picture. Based on the assumption of the lack of perceiving the building block 'Providing Knowledge', the complete picture can be provided. In this case the collected evidence is consistent with Owner's behaviour as to why he did not request appropriate project management documents, why he did not support PM and why he did not provide sufficient human resources. According to this picture the building block 'Providing Knowledge' has to be improved for Owner. As a result, Owner would have supported the approach of PM and would have provided the authority for PM to hire sufficient human resources, including the suggested and required technical project manager with appropriate project management knowledge. Of course, Owner, who had then acquired the required project management understanding, would have requested appropriate project management documents from this specialist and in return would have provided the project team with the freedom of informed choices. This would have contributed to the building block 'Fostering High, Non-Comparative Standards' for a sense of competence and to the building blocks 'Tracking Milestones', 'Providing Access to Customers' and 'Measuring Improvements' for a sense of progress. Finally, supported by these building blocks, Owner would have presumably perceived an intrinsically rewarding environment.

The impact of this finding is that on the one hand the integration of a human-centred philosophy is successful in delivering the complete picture, but on the other hand the complexity increases. Whereas so far the integration of a human-centred philosophy is simplified by deploying a selected model in the form of a checklist, which can be answered with the collected evidence, this stakeholder is an exception. In this case additional rules and further knowledge are required. Based on this example, the rule can be defined that the authentic behaviour has to be compared with other evidence collected. Only if the authentic behaviour corresponds with the collected evidence, the question whether a building block is supporting an intrinsically rewarding environment or not can be answered; otherwise a further analysis of the behaviour and evidence is required. A second implication of this finding on the complexity answers the question 'what could be done to improve the situation'. The challenge is to confront a self-confident personality such as Owner, who possesses a fine logical brain, excellent

education and rhetorical skills, with this ego threat and to convince him that an improvement of the building block 'Providing Knowledge' would be required to improve the intrinsically rewarding environment for him and, finally, to deliver Project1 successfully.

9.5.4 Unit 4: PM, Project2

Based on the perceived intrinsically rewarding environment, PM and PMtech delivered the primary group objective, the Christmas product for the operating company. For this primary group objective, other requirements, including a stable IT landscape, were sacrificed. Project2 delivers the insight that despite the present organizational culture, an ignored socioeconomic environment and a low company maturity, a primary project objective can be achieved. For this purpose PM and PMtech adopted their tasks accordingly. This means that this project environment provided insufficient resources for an appropriate deployment of project management knowledge areas, and therefore PM and PMtech executed only those project management processes that, according to their view, were required to achieve the primary project objective. In addition to a general lack of resources, the available time was moreover reduced by the decision of the operating company. The resulting red status was recognised by the project core team and in the management core meeting, however it was not reported due to the organizational culture. Despite of receiving a dark yellow status report, the management did evidently not act. Furthermore, (a) the layout of the status reports lacking appropriate information, (b) the reported manual workarounds, (c) the bending of the internal requirements, such as the delayed delivery of the project charter or avoiding a reporting of the man days spent, (d) the lack of a STC and (e) the lack of a project sponsor, were all accepted. According to the opinion of the management, a simple project such as Project2 did not require more than a 50 per cent human resource in the project office. Of course, their opinion seemed confirmed by receiving the enforced green and dark yellow project status reports. In their opinion a dark yellow status report and manual workarounds did not require any action. Neither during the project phase nor after the project did the management take any action like initiating another project to replace the manual workarounds with an appropriate automated solution.

In addition, the excellent KPIs also confirmed the management in their decisions. As discussed in the holistic view of Project2, the KPIs are a part of the performance review and directly influence the flexible part of the income as well as a promotion. A logical consequence for the employees of the operating company was to deliver only excellent KPIs and not to report, for example, extensive overtime and weekend work. PM and PMtech internalised these company values and regulations. As a result, this project environment did not interfere with their feelings of meaningfulness, choice, competence (for PM only) and progress. Furthermore, the final recognition of the management in answer to their successful project delivery apparently confirmed for both stakeholders that they had shown the right behaviour. Of course, especially the missing building blocks could have been improved, however presumably without any impact on the project outcome. Even by improving the intrinsically rewarding environment, which is supported by all 20 building blocks, both stakeholders would have still complied with the company values and regulations. In short, PM and PMtech would have played by the rules which were defined by the management.

On the other hand, the operating company had to pay the price for the project environment they constructed; the management naturally is fully accountable for its project environment. In other words, the unwanted side effects could have been circumvented only by changing the organizational culture and organizational environment. For example, by creating a core competency integration the project strategy for a mature organizational environment could have been supported. Based on this knowledge, a STC could have been created and a project sponsor could have been defined. Furthermore, the correlation between KPIs and the company's interests could have been recognised and modified accordingly. As a result, the overtime and weekend work would have been recognised as well and the final KPIs would have been decreased. Based on the interest of delivering excellent KPIs, PM and PMtech would have reported this danger at an early stage to the project sponsor. The project sponsor as the finally and politically responsible person, who would also have been interested in a successful project, would have been supported in providing the available resources. Furthermore, with the availability and attention of a project sponsor, the issues which finally were solved by manual workarounds, could have been solved differently, for

instance, by initiating another project to replace the manual workarounds by installing an automated solution.

9.5.5 Summary of the Impact on the IT Project Outcome

User01 and User02 finally expressed their discontent at work by rejecting the user-based pricing model. Besides other identified forms of resistance, this rejection caused a delay by another six months. With the integration of a human-centred philosophy the underlying cause of their behaviour can possibly be explained. This explanation provides the insight that the project was presumably meaningful for the stakeholders, but a missing sense of choice, competence and progress may have caused their negative behaviour. By providing the building blocks for a sense of choice, for example, the recommendation of providing and discussing the user-based pricing model already in the first STC meeting, would have prevented the rejection in December. Vendor01 and Vendor02, even when having been in a difficult position as the vendors who want to sign a contract, were also able to express their discontent at work. Based on the assumption of an underlying cause explanation, the lack of a sense of choice, competence and progress can be identified. By providing the building blocks for a sense of choice, for example, the availability of the requested detailed project scope, project schedule and LoI, the escalated incidents of Vendor-Compay01 would possibly have been avoided. Consequently, instead of wasting energy in escalations and discussions, this energy could have been invested in advancing project tasks, which finally might have been replaced the fear of punishment with the accomplishment of rewards. PM, who seemingly suffered due to the lack of all senses for an intrinsically rewarding environment, could have been helped by an enhancement of the sense of meaningfulness. The recommendations can be defined by the missing building blocks, for example, Owner would have had to provide opportunity rewards to PM by accepting PM's authority and work tasks including the staffing requirements, project organisation and project approach. In the case of Owner, the developed Model also can provide recommendations, however also clearly underlines that confronting Owner with the situation may have been a challenge. Nevertheless, a clear recommendation can be provided. Owing to the phenomenological position of this study, the mindset that there might be equally valid explanations cannot be ignored. However, this does not imply

that there are as many social realities as there are observed stakeholders. Consequently, within the context of this study, the deployed Model seems to be able to describe how the individual sees the project and also provides insight into the shared group culture. Furthermore, the cross case analysis shows that the majority of the stakeholders perceive the building blocks similar, except for individual differences - such as the strong support of Owner by his mentor Initiator; this difference supported Owner in receiving a sense of choice, which was though only received by him. Findings indicated clearly that the stakeholders of the fourth Unit of Analysis perceived an intrinsically rewarding environment. Moreover, an improvement of the missing building blocks may not significantly improve the outcome and therefore no recommendations are required for this specific aspect.

Finally, the presented Units of Analysis aim to demonstrate that the integration of a human-centred philosophy may be capable of completing the Comprehensive Problem-solving Picture (Figure 1) and thus help to improve the current IT project outcomes. The line of argument in this Chapter is based on the evaluation of the rationale, the stakeholders' behaviour as illustrated in the previous Chapter 6 and 8. This aspect may be crucial once the recommendation stage is reached, as it focuses on an underlying cause that prevents improvement. This focus strongly supports the author's view that there may be possibilities to improve the outcome of IT projects, and therefore indicates potentially the end of the tragedy.

9.6 Conclusion

The discussion in this Chapter indicates that an analysis of the company culture, socioeconomic and organizational environment as well as the applied project management methodology may be required in order to examine the reasons for the stakeholders' behaviour. It would seem that the following adjustments, which are based on the research results provided, may be required. First it appears to be vital to filter internalised behaviour in all aspects of the Holistic View. This apparently does not only apply to the organizational culture, but also to the other elements of the Holistic View. Second, some of the evidence presented shows that there might not be sufficient justification to integrate the project management methodology (the availability of templates) of the organizational environment into the Holistic View. Therefore, the project management methodology is excluded from the IT Project Process Model.

The previous Chapters 6 and 8 presented the Template Analysis of the factor Motivation. This analysis intends to show that by looking through the lens of motivation the underlying cause explanation for the stakeholders' behaviour can be provided. With the intention to offer possible answers to the second research question, this Chapter argues that based on a better understanding in form of an underlying cause explanation, recommendations can be defined which might be capable of improving the IT project outcome.

10 Conclusion on the Influence of Stakeholder Motivation

10.1 Research Approach to this Study

10.1.1 Importance of Research Methodology and Design

Analoui (1995) argues that popular survey methods such as questionnaires and structured interviews would yield meaningless data for behaviour related research. The discussion in Chapter 4 hypothesises that this argument is only supported if something ‘new’ within behaviour related research can be found⁶⁹. In the case of finding something ‘new’, qualitative investigations without pre-assumed situations and an up-front definition of the participants seem to provide the flexibility required⁷⁰. This required flexibility is summarised in Chapter 9, which also suggests that, for instance, the underlying rationale for the behaviour of the unit Vendor was only possible to understand due to the prolonged insider status of the participating observer⁷¹. The focus of the following research, for example based on quantitative evidence, seems feasible on basis of this foundation (Tietjen and Myers 1998, referring to Herzberg 1982).

10.1.2 The IT Project Process Model

The simplified IT Project Process Model was developed based on the identified projected key hypothesis for this study in Chapter 1. Following the discussion of the academic literature in Chapters 2 and 3, two conceptual frameworks were constructed for this Model, which are available as Appendixes A and B. Guided by these two conceptual frameworks, the collected evidence enabled an analysis of the Holistic View of both projects and thus of Motivation of the selected Units of Analysis. Consequently, the Template Analysis in these Chapters is based on criteria, which derive from academic literature.

⁶⁹The ontological position is discussed in Chapter 4.3 and the selected research methodology is illustrated in Figure 5.

⁷⁰The stakeholder discussion in Chapter 2.2.2 shows the up-front limitations of the introduced project risk research studies.

⁷¹Chapter 6.3.4 discusses this finding.

Finally, the findings are discussed in Chapter 9, resulting in the IT Project Process Model (Figure 10) which, as evidence indicates, depends on two interwoven aspects: The Holistic View shapes the Motivation of all involved stakeholders. The Holistic View describes the environment, which evidently influences the project stakeholders. Strictly speaking, the Holistic View is split into the project environment, which is controlled by others, and the applied project management methodology, which is controlled by the project manager. Motivation is presumably strongly influenced by the stakeholder's individual perception. In other words, the individual stakeholders conceivably build their own rationale for their behaviour depending on their perceived building blocks for motivation. The analysis of this rationale may give an indication of the reasons for the stakeholders' behaviour.

As a consequence, the previously posed question what could be done to improve the situation, may be elucidated. The suggested recommendations for all Units of Analysis are presented in Chapter 9. With the application of these recommendations, the environment from which the stakeholders perceive their motivation is believed to become modified. This modified environment presumably would encourage the stakeholders to change their behaviour to strive willingly to achieve the project objectives.

10.2 The Finding: An Underlying Cause Explanation

10.2.1 The Current Project Risk Research Debate

Debate: Project Risks

Chapter 1 discusses the current situation of IT projects. Recent research on project risks estimates that 70 to 90 per cent of IT projects do not deliver the projected outcomes set at the initial stage. These discouraging and unsatisfactory figures were the starting point for this study's research question. Subsequent to the discussion of the Comprehensive Problem-solving Picture (Figure 1), project risk research studies were analysed. With the intention of identifying a direction for further research, the findings of these project risk research studies were classified into project management methodology, quality management, project environment, and general recommendations.

Based on this classification, the discussion provides a sufficient foundation to explore 'motivation' as the key theme for this study. Comparable to the introduced project risk research studies, this study also provides symptoms (project risks) by looking through the lens of motivation in order to analyse the outcome of IT projects (Figure 2). The following discussion shows how the identified symptoms in this study have been already addressed in other project risk research studies. Jiang and Klein (2000) identified both the lack of general expertise within a project team as well as the lack of clear role definitions for team members, to have a significant impact for software development risks on project effectiveness. This particular study defined 'general expertise', among other, as the ability to work with top management.

In Project2, the issue of the new commercial launch date and the unwanted side effects seemed to address this project risk⁷². In the study of Jiang and Klein (2001) one of the three most common risks associated with IT projects is ‘application complexity’, which is defined by the number of other systems affected and the sophistication required for the implementation. In Project1, the high application complexity became visible with the issue pricing model for the unit User⁷³ and for the unit PM⁷⁴ - as discussed in Chapter 6. Project2 dealt with the application complexity as well, as seen in the manual workarounds discussion in Chapter 8. The study of Riggie (2001) is based on the so-called chaos report presenting incomplete requirements and lack of user involvement as the top reasons why projects are often impaired and ultimately cancelled. Again, the symptom of the lack of user involvement seemed to be an appropriate aspect for unit User in Project1. The symptoms found for unit Vendor⁷⁵ are different and can be discussed controversially in this context. On the one hand, the argument of finding activities in the background leads to the result that these symptoms (for a vendor) were not considered in the introduced project risk research studies. On the other hand, the project risks, which are indeed relevant for the recommendation to improve participation and commitment, can be used for analysis of this symptom.

Finally, the discussion of the project risks, in reference to the introduced project risk research studies in Chapter 1 (e.g. Hartman and Ashrafi 2002, Globerson and Zwikael 2002, Jiang et al. 2002b, Christenson and Walker 2004), could be extended with the intention to demonstrate that the symptoms found in this study have been already identified by other project risk research studies.

⁷²The behaviour of the selected stakeholders in this Unit of Analysis did not show any form of resistance, yet the influence of the project environment created obvious symptoms, which are described in Chapter 8.2.1. Finally, even though Project2 was internally communicated as a success, the assessment of the project outcome offers a different view in Chapter 8.2.2.

⁷³The resistance of the unit User in Chapter 6.2.1 highlights that several symptoms were shown by the users, which directly contributed to the delay described in Chapter 6.2.2.

⁷⁴The symptoms of the unit PM in Project1 are described in Chapter 6.4.1 as well as the impact on the project outcome in Chapter 6.4.2, which shows the importance of the project manager for a project.

⁷⁵The symptoms for the resistance of the unit Vendor are presented in Chapter 6.3.1 and the impact on Project1 is elucidated in Chapter 6.3.2. In this scenario, the resistance was hidden in the background, but evidence could be collected due to the selected research methodology including ethnography as a data collection process.

Debate: Risk Strategies

The central hypothesis of this study is that the potential explanation for the failure of IT projects can only be identified through ‘the complete picture’, an analysis of all aspects involved. Utilizing this Comprehensive Problem-solving Picture (Figure 1), the possible reason for failure, the underlying cause, has to be identified, before recommendations that may improve the IT Project situation can be put forward. By looking through the lens of motivation the underlying cause of stakeholder behaviour may be explained, which ultimately perhaps can provide a better understanding of the situation. For the Units of Analysis in Project1, this ‘better understanding’ is outlined in Chapter 6. In context with the Unit User in Project1⁷⁶, the recommendations of Remenyi and Sherwood-Smith (1999), Jiang et al. (2000), Jiang and Klein (2001) and Riggle (2001) were discussed. This discussion advocates the point of view that on the basis of a better understanding recommendations could be identified, which may be able to improve the IT project situation. Chapter 9 produces these recommendations for all Units of Analysis.

Consequently, through having identified the underlying cause, the research findings suggest that the symptoms may be alleviated. Otherwise, if the underlying cause is not revealed, the identified symptoms can not be expected to be mitigated with the result that new symptoms may surface. In this case, the effort invested in time and resources in order to try to overcome the identified symptoms based on recommendations, which are not focused on the underlying cause, might potentially be wasted. Along with the study of Yiang and Klein (2000), the symptom of the significant impact on the project due to the lack of the ability to work with the top management could be identified in Project2. The recommendations on the other hand, such as training, a stronger emphasis on the project manager to build team skills throughout the project life cycle and to obtain user participation and commitment among others, appear to be of limited help for Project2. In brief, the management demanded a new commercial launch date to increase the profit during the Christmas business. Nevertheless, a change of the requested (new) commercial launch date seemed not acceptable for the management.

⁷⁶The discussion is presented in Chapter 6.2.4.

Of course, the unwanted side effects were apparently not appreciated by the management; these presumably could have been circumvented by changing the organizational culture and environment - as discussed in Chapter 9.

It seems evident that these factors would have to be considered to achieve increased awareness on the specific IT project situation. Additionally, the analysis of the organizational culture in Chapter 9⁷⁷ delivers another aspect for considering motivation as an underlying cause explanation for IT projects. It can be argued that all recommendations in the introduced project risk research studies, which are focused on internalised behaviour, may also not significantly improve the intrinsic motivation of the stakeholders and, consequently, the project outcome. This effect is explained in the Organismic Integration Theory (OIT) by Ryan and Deci (2000). In other words, the effort invested in these recommendations to (significantly) improve the project outcome might again potentially be wasted. The findings reflect the author's view that the lens of motivation can illustrate internalised behaviour and therefore contribute to a better understanding.

These results suggest that there is a possibility to improve IT project outcomes by means of considering the underlying cause explanation. Thus, an extension of the current discussion of risk strategies to mitigate project risks may prove to be effective. The key theme 'motivation' seems to offer an appropriate explanation for the underlying cause. This can certainly be seen as one significant finding of this study.

10.2.2 Contribution of a Different View

Schmid and Adams (2009) state that only few studies provide insight into this important subject and their survey shows how project managers perceive their ability to influence team motivation. According to Schmid and Adams (2009), most project managers believe that they can create a subculture within their projects to motivate their team, even though they may have been struggling with team motivation in their last project.

⁷⁷The evaluation of the organizational culture is outlined in Chapter 9.3.1.

By looking through the lens of motivation, this study proposes a Model, which may support project managers to achieve the required motivation. The IT Project Process Model was developed with the intention to provide guidelines on how project stakeholders could be motivated, and thus IT projects improved:

- First, it is believed that all stakeholders - not only the project team – would have to be considered to achieve the required IT project outcome.
- Second, the findings support the hypothesis that the motivation of the project stakeholders is seemingly shaped by project environment and deployed project management methodology.
- Third, it is thought that due to the effect of individual behaviour on group behaviour, the motivation of an individual stakeholder may have to be understood and dealt with before team motivation can be considered.
- Finally, the evidence indicates that through an increased understanding of the underlying cause explanation, recommendations on how to improve the situation can be identified.

10.2.3 Findings for Related Research

Further findings of this study point towards interesting related research such as on ‘Scapegoating’, the attribution theory and the importance of the project manager. These aspects are discussed within the findings for Unit PM in Chapter 6 and for Unit PM in Project2 in Chapter 8.

In the context of the attribution theory (Weiner 1986, Furnham et al. 1994), this study contributes to the internal-external distinction, which is central to most attribution models (Schaffer 2000). On the basis of the Holistic View, evidence is provided that the project environment has a critical influence on shaping the attribution patterns of all stakeholders assessed.

Another finding of this study underlines the importance of the project manager (e.g. Belassi and Tukel 1996, Jiang et al. 1998, 2001, Icmeli-Tukel and Rom 2001) for the execution of a project.

10.3 Limitations of this Study

10.3.1 Quality of the Collected Data

This study focuses on three data collection methods: ethnography, document analysis and interview. Whereas the documents are available in printed form, the data collected by ethnography and interview had to be jotted down and written up in field notes. Due to the fact that the stakeholders were uncomfortable with the tape recorder and the author of this study had no knowledge of shorthand, the field notes do not present a full transcript. Instead, the most important aspects were selected which should finally provide the insight required. Therefore, the quality concept in Chapter 4 was introduced to ensure the appropriate quality of the data collected. Besides, for instance, the utilisation of multiple resources and a case study protocol (including the principle of triangulation), the final construct validity requires that the key informants should review a draft case study report to ensure quality. This final construct validity recommendation has been followed up and the two project managers in Project1 and Project2 have received a draft version of this study.

10.3.2 Theories and Models

The theories and models utilized in this study were selected due to their appropriateness, which nevertheless has its limitations:

PFM Model

The discussion in Chapter 2 managed to identify the appropriateness of the PFM Model (Toney and Powers 1997) for this study. In reference to the participants of Toney and Powers' (1997) study, the Model is focused on industry-independent, large and functional organizations, which might limit the applicability of this research.

Furthermore, the PFM Model is based on Toney and Powers' approach of discussions and questionnaires. The key success factors were completed by evaluating the knowledge of the majority of the participants. Depending on their different fields of knowledge, which proved not to be particular areas of interest, the key success factors could have been discussed further. For example, based on the discussion in Chapter 3, one particular key success factor was modified.

PMBok®

Owing to the lack of availability of a global BoK, the PMBoK® was selected due to its high circulation. This project management methodology provided a structure for the collected evidence. For this reason, a further evaluation of the appropriateness of the nine knowledge management areas as mandatory requirements for a project management methodology was not needed for this study. Nevertheless, the analysis of the collected evidence demonstrates that - among other - the knowledge management area procurement could be excluded, because in both projects the project manager was not responsible for this area. This might be interesting for further research.

Integrative Model

The Integrative Model created by Thomas and Tymon (1997) and Thomas and Velthouse (1990) combines the rewards for task activity and task purpose in a work environment. Furthermore, the Model appears to be applicable for the purpose of this study, because the Model does not require prerequisites such as a long-term work relationship or a manager-subordinate relationship between the project manager and the involved stakeholders.

The analysis of the collected evidence delivered aspects, which provide the foundation for research refinements. First, the finding of delusive perception offers a starting point for further research. Second, the impact of time is a crucial consideration for a project. This impact should be considered in a further development of a psychological model for the project environment. Third, the structure of the building blocks, for example, the building block 'Providing Information' contributes to making informed choices. On the other hand, information can directly interfere with the sense of meaningfulness, because

without sufficient information about the project objective the individual stakeholder might not feel a sense of meaningfulness.

10.3.3 Applicability of the IT Project Process Model

The findings of this study suggest that the IT Project Process Model may be applicable for stakeholders with different roles, interests, personalities and backgrounds as well as for different types of IT projects (Figure 4). Furthermore, the comparison between the two project manager Units of Analysis highlights that the IT Project Process Model can be applied for stakeholders who do - and who do not - perceive an intrinsically rewarding environment. Whereas in Project1 the Holistic View influenced the factor 'motivation' in so far that the selected stakeholders did not perceive an intrinsically rewarding environment, in Project2 this influence presumably was also present even when stakeholders perceived an intrinsically rewarding environment. The difference is that PM and PMtech seemingly adapted their behaviour to the project environment, which did not foreclose perceiving an intrinsically rewarding environment. Their behaviour - and with this their emotional perception – seemed to be confirmed by the management congratulating on their success.

Therefore, if a change was pursued in Project2, for example to achieve secondary project objectives such as avoiding additional risks in a fragile IT landscape, it can be assumed that the management would have the duty to transform the project environment for which they should be responsible for. This aspect provides us with an interesting starting point for further research. Owing to the selected theories and models as well as the selection of IT projects for this study, a limitation of the applicability for IT projects in medium and large-scale organizations is possible. Furthermore, the private life of the involved stakeholders was excluded, and also the cultural environment of other companies such as Vendor-Company01 in Project1 may not have been accessible enough to be examined. These factors could have had an impact on the outcome of the project and therefore the study.

10.3.4 Generalisability

The selected Units of Analysis demonstrate that this Model may be capable of completing the picture, which may lead to IT project problem-solving strategies applicable for different stakeholders in the same as well as in different project settings - pure work setting. Based on the phenomenological position, alternative interpretations can be seen as equally valid as discussed in Chapter 4. For example, an alternative interpretation of the behaviour of Owner in Project1 and the recommendations based thereupon is evidently possible. An alternative interpretation of the behaviour of Owner might even lead to the replacement of the selected Model of Motivation, because of the issue of delusive perception as defined in Chapter 8. Even other deployed models within the IT Project Process Model could be replaced by new and improved or by different models altogether - for example, for the assessment of different environments such as construction projects. Nevertheless, this does apparently not interfere with the findings of this study and the possible generalisability of the Model, as well as the general definition of the two aspects, due to which the IT project outcome depends on the Holistic View and Motivation of all involved stakeholders.

10.3.5 Predictive Capability

The IT Project Process Model can provide a better understanding of the observed situation. The predictive and explanatory requirements can be satisfied to the extent of a management research. The extent of a management research suggests the lack of social science discourse providing a theory, which can describe the complex interactions between people in a current situation. This study may deliver a first insight into the value and importance of the integration of social science into management theories, yet, the focus of this study lies first of all on management as such. Crowther (2004) argues that

“[...] any theory which extends our understanding will of course have some predictive ability as it enables us to find common themes in different situations and therefore to seek solutions to problems through the transfer of useful solutions from one set of problems to another set which superficially appear to be different.” (Week 4, p. 5)

In the study at hand, the results of the project risk research appear to be contrasting, however after differentiating between symptoms and the underlying cause, the required generalisation can be achieved “so that the understanding derived from one set of circumstances can be extended to other circumstances” (Crowther 2004, Week 4, p. 3). As a result, it is impossible to predict outcomes with utter certainty and moreover the illustrated Model is unavoidably probabilistic and can only make predictions by stating that “we are z% certain that y will happen if we do x” (Crowther 2004, Week 4, p. 5).

10.3.6 Limitations of this Study

This study is the work of one researcher and presents one view on the complex social phenomenon of IT projects. By looking through the lens of motivation, this study is able to provide insight as to why IT projects fail and what could be done to improve the situation. It is evident that different views based on other research approaches/methods might also be able to deliver appropriate answers.

10.4 Reflective Journey

10.4.1 Approaching Companies

The academic literature discussion in Chapters 2 and 3 delivered a number of constraints⁷⁸ when choosing an appropriate IT project for this study. Consequently, the author was looking for companies, which execute a large number of the required IT projects. Therefore, he addressed medium and large-scale companies regardless of their industries as well as established consultancies. The researcher identified the CIO's and IT directors of these companies as the gatekeepers. Either by post or, when possible, face-to-face at a conference, he expressed my interest to the gatekeeper.

⁷⁸The constraints are summarized in Chapter 4.5.

There was a considerable amount of interest in this study and the researcher was invited for a meeting by 8 out of 9 gatekeepers. During these initial presentations, he outlined this study and offered to support the project with 50 per cent of his time⁷⁹. Consequently, due to their interest in this study and the collaboration offer he made to them, the gatekeepers granted the access required. Subsequently, as a next step a meeting with the project manager of the particular IT project was scheduled.

10.4.2 Selection of Projects

Meeting the project manager provided the researcher with the information required to assess the project more detailed. Without exception all projects turned out to be appropriate for the research and he selected them randomly. Yet, after the first few weeks of participation, four projects showed limitations, which forced the researcher to dismiss these projects:

In one particular project the works council did not approve any new external stakeholders in the project due to ongoing negotiations with the top management of the operating company. The second project was executed by a large consultancy, in which the client ultimately disapproved of the integration of any other 'external' persons in the project. In the next project, the project manager seemed to have the intention to misuse the researcher's role by indicating that the researcher should report solely positive project outcome to the gatekeeper. Thus, not all information – as access to meetings and documents was restricted – was made available, and interviews indicated that the project manager may be extremely sensitive towards any question concerning observed symptoms which could lead to negative feedback. The project manager in the fourth project seemed to show interest in this study in the presence of the gatekeeper. In the absence of the gatekeeper, his interest apparently vanished. Consequently, these four projects were not feasible. From the remaining four potential projects the researcher selected two projects randomly and, in fact, he received the required support of the respective project managers.

⁷⁹The offer is described in Chapter 4.6.1.

10.4.3 Integration into the Project Team

Due to the definition of the positional space (Mullings 1999), the integration of the operating company into the project team was entirely positive. It was important to present and explain my study to the project team. In this context, the letter of introduction⁸⁰ was important to the stakeholders. Especially in an environment, which is known to have ‘Scapegoating’ practices, it was crucial to consider ethically that the operating company had no access to my jottings. Nevertheless, the stakeholders rejected voice and video recordings. Reactive effects were not observed. Supposedly, because of the researcher’s supportive role toward the project, and, moreover, an increasing level of trust⁸¹ over time (Emerson et al. 1995), I received access to personal e-mail folders and files. Having achieved this level of trust, the stakeholders answered interview questions openly. Labaree (2002) describes these advantages as value of greater access, the value of cultural interpretation, the value of deeper understanding and the value of clarity of thought for the researcher.

10.4.4 Learning Experience

The discussion in Chapter 2 argues that the management of the operating company owns the organizational environment (Jiang et al. 2001). Furthermore, the same management claims to hold the power over defining the values and regulations, which form the organizational culture (Ryan and Deci 2000). This study aims to elucidate the hypothesis that the organizational environment and organizational culture are two important aspects, which shape the motivation of the involved stakeholders. In other words, the management appears to be in the position to considerably influence the project outcome, which is evidently due to the setup of organizational environment and the organizational culture of the specific organization.

⁸⁰The letter of introduction is outlined in Chapter 4.8.7.

⁸¹As argued in Chapter 4, being an insider provides access to information which otherwise would not be available.

As in regards to the two projects in this study, the management did seemingly not provide a supportive setup; both projects visibly lacked an appropriate organizational environment and organizational culture⁸². The irony of this situation appears to be that, on the one hand, the management needed a successful project outcome and, on the other hand, the management decreased the success probability by its inability to provide an appropriate organizational environment and organizational culture. Both Project1 and Project2 failed to deliver the expected project outcomes, and for this reason Owner and Initiator of Project1 had to leave the operating company and respectively in Project2, the HeadPM had to take over a smaller department.

Consequently, the researcher deduced that the management may have been aware of the impact of motivation on the required project outcome, but no appropriate actions were executed. To define this situation as inactivity is supported by the argumentation of Daly and Kleiner (1995) that the problem lies actually within the management. However, the resulting 'irrational' behaviour as described in Chapters 6 and 8, should not be ignored by the management as the 'dark side' of organizational life (Analoui 1995). Recommendations such as 'driving out fear' (Deming 1993, Daniels 1999) or the limited effect of tangible extrinsic rewards (Deci 1995, Gneezy and Rustichini 2000, Frey and Osterloh 2002), as discussed in Chapter 3, may provide an excellent opportunity to improve the leadership behaviour accordingly. More specifically, punishment and 'Scapegoating' would be removed from work task motivation completely, and tangible extrinsic rewards would be replaced with intangible rewards, such as praise and positive feedback. Furthermore, it could be speculated with the help of the study hypothesis that the effectiveness of tangible extrinsic rewards in the Western management philosophy tends to be overrated. Another learning experience concerns the current popular project management methodologies of PMI[®] and IPMA⁸³/GPM⁸⁴. Both methodologies clearly demonstrate the importance of motivation within project management processes.

⁸²The organizational environment and organizational culture for Project1 is described in Chapter 5 and for Project2 in Chapter 6.

⁸³The 'International Project Management Association' (IPMA) is the umbrella association of the national project manager associations in Europe. In England, the 'Association for Project Management' (APM) and in Germany the 'Deutsche Gesellschaft für Projektmanagement e.V.' (GPM) are the respective national associations. In 1991, the APM published their first version of their PMBoK and similar projects

In the PMBoK® (2008), the PMI® argues - as shown in Appendix G - that motivation was definitely important, but did not provide any support for a project manager⁸⁵. In stark contrast to this attitude, the methodology of GPM covers a wide variety of motivational aspects in the area of social competence. These aspects present a foundation, yet do not deliver a practical Model, which a project manager could apply to the process of managing an IT project⁸⁶. Based on the research results as discussed above, it appears to me that the integration of a different view on motivation may be interesting for the current, popular project management methodologies. During the PMdays 2006 in Vienna, Turner (2006, slide 2) criticized the fact that the project manager's competence was utterly neglected by stating that: "PM's competence, including leadership style is not a success factor on projects (...) it is all tools and techniques".

followed in other European countries. "Since 1993 the IPMA certification core team (CCT) has been charged with the coordination and harmonization of the national projects and achievements" (ICB 1999, p. 7). The IPMA competence baseline (ICB) "was established on the basis of the Nation Competence Baselines of APM (U.K.), VZPM (Swiss), PM-ZERT (Germany) and AFITEP (France)" (ICB 1999, p. 8) and contains the knowledge, experience and personal attitude necessary for receiving the four level IPMA certification. Within this construct, the national associations are responsible for "developing and managing their own project management qualification and competence programme and for establishing their certification bodies" (ICB 1999, p. 15). Therefore, no universal IPMA PMBoK including tools and techniques is available.

⁸⁴For this reason (see Footnote 6) only one publication of the various national associations had to be selected to conduct the comparative research of this study. Owing to the accessibility of the 'Wissensspeicher' ("knowledge depository"), which is the German body of knowledge of the GPM, this compendium was chosen.

⁸⁵In this version of project management methodology, motivation is considered insofar that in Appendix G motivation is mentioned as a required interpersonal skill of the project manager. The importance of motivation is also recognized on page 210: "The overall success of the project depends upon the project team's commitment, which is directly related to their level of motivation."

A further evaluation of the aspect motivation, e.g. by providing tools and techniques for achieving their recommended motivation, is not provided in the PMBoK® Guide 2008. Schmid and Adams (2008) already investigated this aspect for the PMBoK® Guide 2004, however it features also in the PMBoK® Guide 2008.

⁸⁶One of the GPM compendium's four sections is dedicated to social competence, which includes motivation and leadership as well as social perception, communication, social structures, groups and teams, learning organization, self management, conflict management and special communication situations.

The individual sections provide a general and wide overview of the different aspects. Therefore, even while the general overview for social competence and motivation is included, it does not offer sufficient support in a real project setting. The description of the terms "intrinsic" and "extrinsic" in the section on motivation may serve as an illustrating example: intrinsic and non-tangible extrinsic rewards are briefly explained and only the tangible extrinsic rewards are discussed in more detail (GPM 2004, p. 269 – 490). The controversial debate on tangible extrinsic rewards in general as well as more specifically in a project environment is presented in Chapter 3. This discussion aims to point out why the detailed explanation of tangible extrinsic rewards is only of little assistance for a project manager in a real project situation. However, a more practical approach on how to motivate stakeholders, which could be directly implemented during the execution of the project life cycle, is not provided.

To conclude, the findings corroborate the central hypothesis that the lens of motivation provides insight into project management processes leading to a better understanding of the situation. However, the findings also reflect the premise that the project managers should use their leadership to motivate the project stakeholders in order to achieve project success. On the basis of this 'better understanding', it appears to be evident that a project managers could focus their leadership skills and tasks on achieving an increased level of motivation of the involved stakeholders.

10.5 Further Research

Besides providing the foundation for further research, the following questions may create further interest:

10.5.1 Delusive Perception of Building Blocks

The stakeholder Owner represents an exception, which has to be considered for a successful deployment of a human-centred philosophy. In the occurrence when the selected motivational model is not able to explain the rationale of a stakeholder, a further analysis is required, as analysed for Owner in the unit PM in Project1 in Chapter 6. For Owner, a discrepancy between his perception and a realistic judgement for one building block is identified. A further analysis led to the conclusion that Owner deployed an interpretive defence against an ego threat (Baumeister 1996). Based on this self-regulating process Owner was convinced of his realistic perception of this building block. Yet, further research is recommended to foster a deeper analysis of this exception.

10.5.2 Impact on Team Behaviour

The comparison of those units that were part of one project provided the surprising result that the project stakeholders apparently perceived the project environment similarly, when no personal exceptions were present. In this context, the question seems interesting, whether this effect would emerge in all building blocks.

Furthermore, the comparison between the two project manager units delivers two exceptionally interesting findings. Firstly, it can be assumed that a motivated team can even overcome a low project environment maturity and technical issues. It would be vital to understand in which way this process can be influenced, and on which conditions and under which circumstances a motivated team may be able to overcome these issues. Secondly, the motivation of the project manager seems to be of utmost importance for team motivation. Based on this finding, the bi-directional relationship between project manager and project sponsor becomes highly important (Belassi and Tukel 1996). Further research is recommended on the impact of the integration of a human-centred philosophy on project team behaviour - possibly starting with the findings presented.

10.5.3 Responsibility for the Project Environment

Due to the possibility to create and modify the project environment, the responsibility lies with the top management of the respective operating companies. Besides the general responsibility for the project environment, the management is expected to be responsible for all decision making processes, as discussed for the key success factor 'Critically Analyse Alternatives and Opportunities' in Chapter 9. In summary, the following situations may create the starting point:

- In both projects the management made all project-related decisions, which affected both projects adversely. With the integration of the appropriate stakeholders into this decision-making process, the resulting (negative) effects may have been avoided.
- The management either forced or accepted a project reporting which did not present a realistic status. In both projects, the management could also have asked for a project reporting, which would have presumably delivered a more reliable status.
- In Project1, the fear of punishment was present at all times for the majority of the involved stakeholders.

- In Project1, the central board of directors agreed to the project, yet apparently did not request an appropriate project plan and project execution schedule. Initiator did not even know the name of the project manager of Project1.
- In Project2, the KPI model finally delivered excellent results, allegedly because of the flexibility of the data entry, for example, the requirement to process all time sheets of the participation stakeholders was not given.
- In Project2, the manual workarounds were accepted into the steering board without initiating the required projects.

Despite the availability of the required knowledge in both operating companies - in Project1 one member of the central board of directors was a renowned academic expert in project management, and the operating company of Project2 had been awarded with the highest project management prize in its country - the resulting question seems to be:

Why did the top management make these particular decisions?

Interestingly enough, apart from the punishment of Owner and Initiator in Project1, DirectorCentral01 was replaced a few months later. The CEO of the operating company of Project2 was also replaced at a later stage, and PMhead was made to take over a different, smaller department. Whether these replacements were only caused by the researched projects can be doubted, however, due to the importance of these projects, the described project outcomes most likely contributed to these incidents.

To conclude, further research is recommended as to why the top management did not appropriately execute its duties and responsibilities within the project environment.

Appendix A – Conceptual Framework Holistic View

Project Outcome

- Project Distinction
- Meeting Schedule Objective
- Meeting Budget Objective
- Meeting Technical and Functional Objective
- Impact of the Project Outcome
 - Organisational Impact
 - Financial Impact
 - Human Impact

Project Environment

- Organizational Culture
- Socioeconomic Environment
- Organizational Environment
 - Project Strategy
 - Organizational Structure
 - Strategic Communication
 - Performance Measurement
 - Core competency Integration
 - Project Management Professionalism
 - Pay
 - Selection and Retention
 - Nurture Competences
 - Make Project Management a Career Track
 - Performance Evaluation
 - Critically Analyze Alternatives and Opportunities
 - Honesty and Ethics
 - Project Management Methodology (Availability)
 - Project Integration Management
 - Project Scope Management

Project Time Management
Project Cost Management
Project Quality Management
Project Human Resource Management
Project Communication Management
Project Risk Management
Project Procurement Management
Project Change Management
Maturity of the Operating Company

Project Management Methodology Applied

Project Integration Management
Project Scope Management
Project Time Management
Project Cost Management
Project Quality Management
Project Human Resource Management
Project Communication Management
Project Procurement Management
Project Change Management
Summary of Applied Project Management Processes

Appendix B – Conceptual Framework Motivation

Unit of Analysis

Resistance of the Unit of Analysis

Impact on Project Outcome

Template Analysis of the Motivation of the Selected Stakeholder(s)

Meaningfulness

- Building a Non-Cynical Climate
- Clearly Identifying Passions
- Providing an Exciting Vision
- Ensuring Relevant Task Purposes
- Providing Whole Tasks

Choice

- Delegating Authority
- Demonstrating Trust
- Providing Security
- Providing a Clear Purpose
- Providing Information

Competence

- Providing Knowledge
- Providing Appreciative Feedback
- Recognising Skill
- Managing Challenge
- Fostering High Non-Comparative Standards

Progress

- Building a Collaborative Climate
- Tracking Milestones
- Celebrating Progress
- Providing Access to Customers
- Measuring Improvements

Appendix C – Coding Structure

Open Coding: Free (generic – to be extended)

codingfree	codingfree-description
stake appearance	stakeholder appearance and traits
stake personality	stakeholder personality and behaviour
stake role	stakeholder project role and integration
introduction	project introduction and overview
local meaning	local meaning and their effects
socio-eco-env	legal,cultural, social-economic-env sustainability
pm method	available pm method
resistance	behaviour against project objective
project result	effects and results of/on project execution
recommendations	recommendations to improve
argumentation	argumentation recommendations
research result	for final argumentation of findings

Table 4) Open Coding: Free

Open Coding: Organizational Environment

codingpfm	codingpfm-description
Org-Structure, STRA	reporting to senior-level executives and multifunctional responsibility
Strategic Communication, STRA	identify, nurture and build partnerships with senior officers and other stakeholders
Performance Measurement, STRA	show impact on the organizations bottom line and the ability to achieve objectives
Competency Integration, STRA	pm methodologies will be integrated into all other core competencies in the undertaking company
Pay, PROF	use straight pay as a foundation and for high-risk projects
PM selection, retention, PROF	stance in developing programs aimed at attracting, selecting, retaining and rewarding top performing
nurture competence, PROF	training, measure results of training, require maintenance of c., benchmarking, partnering with UNI
make PM a career track, PROF	clearly define project management positions
PM performance evaluatio, PROF	recognize that past performance in competencies is the best predictor of future performance
Analyse Opportunities, PROF	evaluating alternatives and opportunities - combine analytical approach and experience
Honesty and Ethics, PROF	paramount importance - high correlation between the degree of honesty and successful pm delivery
Integration Mgmt, METH	standard templates and processes in place
Scope Mgmt, METH	standard templates and processes in place
Time Mgmt, METH	standard templates and processes in place
Cost Mgmt, METH	standard templates and processes in place
Quality Mgmt, METH	standard templates and processes in place
HR Mgmt, METH	standard templates and processes in place
Communication Mgmt, METH	standard templates and processes in place
Risk Mgmt, METH	standard templates and processes in place
Procurement Mgmt, METH	standard templates and processes in place
Change Mgmt, METH	standard templates and processes in place

Table 5) Open Coding: Organizational Environment

Open Coding: Project Management

codingpm	codingpm-knowledgearea
Organizational Planning	Human Resource Management, PLA
Staff Acquisition	Human Resource Management, PLA
Physical Environment Planning	Human Resource Management, PLA
Change Action Planning	Change Management, PLA
Communication Planning	Communications Management, PLA
Risk Management Planning	Risk Management, PLA
Risk Identification	Risk Management, PLA
Qualitative Risk Analysis	Risk Management, PLA
Quantitative Risk Analysis	Risk Management, PLA
Risk Response Planning	Risk Management, PLA
Procurement Planning	Procurement Management, PLA
Solicitation Planning	Procurement Management, PLA
Project Plan Execution	Integration Management, EXE
Quality Assurance	Quality Management, EXE
Team Development	Human Resource Management, EXE
Change Action Execution	Change Management, EXE
Information Distribution	Communication Management, EXE
Solicitation	Procurement Management, EXE
Contract Administration	Procurement Management, EXE
Integrated Change Control	Integration Management, CON
Scope Verification	Scope Management, CON
Scope Change Control	Scope Management, CON
Schedule Control	Time Management, CON
Change Action Control	Change Management, CON
Cost Control	Cost Management, CON
Quality Control	Quality Management, CON
Performance Reporting	Communication Management, CON
Risk Monitoring and Control	Risk Management, CON
Administrative Closure	Communication Management, CLO
Contract Closeout	Procurement Management, CLO

Table 6) Open Coding: Project Management

Focused Coding: Motivation

codingmo	codingmo-description
Me Climate	A non-cynical climate
Me Passion	Clearly identified passion
Me Vision	(macro) An exciting vision
Me Purpose	(micro) Relevant task purposes
Me Tasks	Whole tasks
Ch Authority	Delegate Authority
Ch Trust	Demonstrating Trust
Ch Security	Security (allowing honest mistakes)
Ch Purpose	A clear Purpose
Ch Information	Information
Co Knowledge	Providing Knowledge
Co Feedback	Providing positive Feedback
Co Recognition	Skill Recognition
Co Challenge	Managing Challenge
Co Standards	Fostering High, Non-comparative Standards
Pr Climate	Building a Collaborative Climate
Pr Milestones	Tracking Milestones
Pr Progress	Celebrating Progress
Pr Customers	Providing Access to Customers
Pr Improvements	Measuring Improvements

Table 7) Focused Coding: Motivation

Fieldwork: Final Free Coding Table for Project1

codingfree	codingfree-description
stakeholder	description of stakeholders
stake appearance	stakeholder appearance and traits
stake personality	stakeholder personality and behaviour
stake role	stakeholder project role and integration
introduction	intro and overview
local meanings	local meanings and their effects
resistance	behaviour against project
project result	effects and results of the project execution
initiative	project: scope initiative
history	project: history
project am	project: am
project me	project: me
project qw	project: parallel project
project ger	project: for germany
project others	project: other parallel projects
10% promise	issue scope: long discussion about 10%
new requirements	issue scope: new requirements
business case	issue: all relating to business cases
manpower	issue: shortage of headcount
DD	issue: project phase DD
frame contract	issue: frame contract
LOI	issue: LOI signature and content
pay stakeholders	issue: countries get paid if they comply
BAFO pricing	issue: BAFO pricing
pricing model	issue: pricing model
dump project	issue: get rid of project
restructuring cost	issue: unsolved matter worth millions

Table 8) Open Coding: Free for Project1

Fieldwork: Final Free Coding Table for Project2

codingfree	codingfree-description
stake appearance	stakeholder appearance and traits
stake personality	stakeholder personality and behaviour
stake role	stakeholder project role and integration
introduction	project introduction and overview
local meaning	local meaning and their effects
socio-eco-env	legal,cultural, social-economic-env sustainability
pm method	available pm method
resistance	behaviour against project objective
project result	effects and results of/on project execution
recommendations	recommendations to improve
argumentation	argumentation recommendations
research result	for final argumentation of findings
project main	project: observed main project
project loop	project: loop initiative
project history nlm	project: history of NLM
project other	project: other related projects
issue: testing	issue: testing
issue: depression	issue: depression in project
esca recharge	escalation: recharge
esca SG	escalation: department SG
esca launch	escalation: launch date
esca msisdn	escalation: msisdn requirement
esca volume	escalation: volume
esca other	escalation: other urgent issues

Table 9) Open Coding: Free for Project2

Fieldwork: Final Sub-Types for Project1

Type ▾	Info Type ▾	Info Sub ▾
JOT-ALL	Jottings	no sub type
ETH-ALL	Ethnographic	no sub type
INT-ALL	Interview	no sub type
PMM-PM	Project Management	general project management
PMM-JF	Project Management	jour fixe
PMM-STC	Project Management	steering committee
PMM-OMEE	Project Management	meetings observed or more information available
PMM-STAT	Project Management	status reports (not in meeting)
PMM-OTHE	Project Management	other related pm topics
PRE-DC	Presentations	CIO presentations including these for meetings
PRE-VEN	Presentations	service provider
PRE-AM	Presentations	project am
PRE-QW	Presentations	project qw
PRE-ME	Presentations	project me
DOC-CONC	Documents	all concept docs
DOC-DD	Documents	due dilligence
DOC-PROC	Documents	all procurement docs
DOC-BC	Documents	all business case docs
DOC-CONT	Documents	contracts
DOC-AUDI	Documents	SAP audit
DOC-PRIC	Documents	pricing
DOC-FC	Documents	frame contract

Table 10) Sub-Types for Project1

Fieldwork: Final Sub-Types for Project2

Type ▾	Info Type ▾	Info Sub ▾
jot-all	jottings	real jottings
eth-all	jottings	jottings of observations
int-all	jottings	jottings of interviews
pmm-pm	project management	general project management
pmm-stat	project management	status reports
pmm-jf	project management	jour fix meeting minutes and docs
pmm-stc	project management	stc meeting minutes and docs
pmm-omee	project management	other meetings and related docs
pmm-othe	project management	other project management related docs
doc-pmm	documents	pm method related documents
doc-otpr	documents	other projects
doc-esca	documents	documents for escalations
doc-othe	documents	other documents
pre-g0	presentations	presentations for gate0
pre-othe	presentation	other presentations

Table 11) Sub-Types for Project2

Appendix D – Data Collection Examples

Observation – Field Note Extract

ETH-031014-stc	
1 14 th October: STC Meeting	
1.1 Before the meeting	
(jot-031014-stc) Before the STC meeting...	
1.2 The informal meeting	
After lunch ...	
Again complaints	
<p>Before PM could start with the first point of the agenda, User01 started again to complain: "I am very unhappy with all things. I reported that I have not seen the last status report from August. I have no idea what is going on, no status." User01 (voice was high and loud. Additional, User01 was expressing his emotions through angry gestures. PM took the opportunity to and said: "You know we have a shortcut in resources" (The emphasis was on the "You".) In the following sentences PM reminded User01 that his actions allegedly were the cause of this lack of a project manager. User01 did not react. Instead User08 conveyed: "Based on this situation I am anxious about the schedule and the DD of Vendor-Company01." Furthermore, User08 continued: "Not everybody was informed about the new scope. First, only SAP was in scope and later everything. Even in Vienna [kick-off with the countries] not sufficient information were provided to the countries [the users]." User08 did not stop here and said: "We have also a communication problem with DD." User08 frequently looked towards User01 with the question on his face: "I am right? Do you agree?" User01 continued in his cynical way: "Everybody is good informed but not me. All is 'Chefsache'." In the following explanation of his view, User01 used words such as 'nonsense'. In this explanation User01 extended his critique to the schedule of the DD. Especially that the CIOs and the CFOs of the countries were asked to sign the DD results of Vendor-Company01 without further information. User08 and User01 argued that 1st November is not far away. Resulting in a debate between User03, PMtech, User08, PM02, and User01, and ended in a short monologue of User03. Nobody intervened or responded afterwards.</p> <p>User05 just added his opinion that the right order of the projects within the initiative. Furthermore the User05 argued that the projects can not be executed in parallel. User03 agreed and both argued about the SLA philosophy. During this discussion both realised that the status of the SLAs was unknown to both of them. That is why User03 suggested a workshop to define how the project should proceed. Meanwhile, User01 saw a colleague walking outside and left the meeting to talk to him for a couple of minutes. User01 returned afterwards to the meeting.</p>	
Kommentar [m1]: Ch information User01 – complained about lack of information.	
Kommentar [m2]: Stake personality User01 – had a high voice.	
Kommentar [m3]: Stake personality User01 – was an active speaker with hands and shoulders.	
Kommentar [m4]: Organisational planning – PM reminded STC about the shortcut in resources	
Kommentar [m5]: Pr climate PM – reminded User01 the he was the reason why no more resources are available.	
Kommentar [m6]: Schedule control – Bruggen was anxious about the schedule.	
Kommentar [m7]: Ch information Bruggen – complained about lack of information on kick-off in Vienna.	
Kommentar [m8]: Stake role User01 – was asked by Bruggen during complaining about lack of information.	
Kommentar [m9]: Me climate User01 – was again very cynical and explained the "Chefsache".	
Kommentar [m10]: Co standards User01 – criticized the project process.	
Kommentar [m11]: Metasks User01 – no info but have to sign DD.	
Kommentar [m12]: Schedule control – DD was due for 1 st November.	
Kommentar [t13]: It scope User05 – criticized how projects were executed within this initiative.	
Kommentar [m14]: Ch information User01 – did not know SLA status	
Kommentar [m15]: Me purpose User01 – walked outside the meeting room to talk with somebody.	

Figure 3) Field Note Extract 'Observation'

Document – One Page

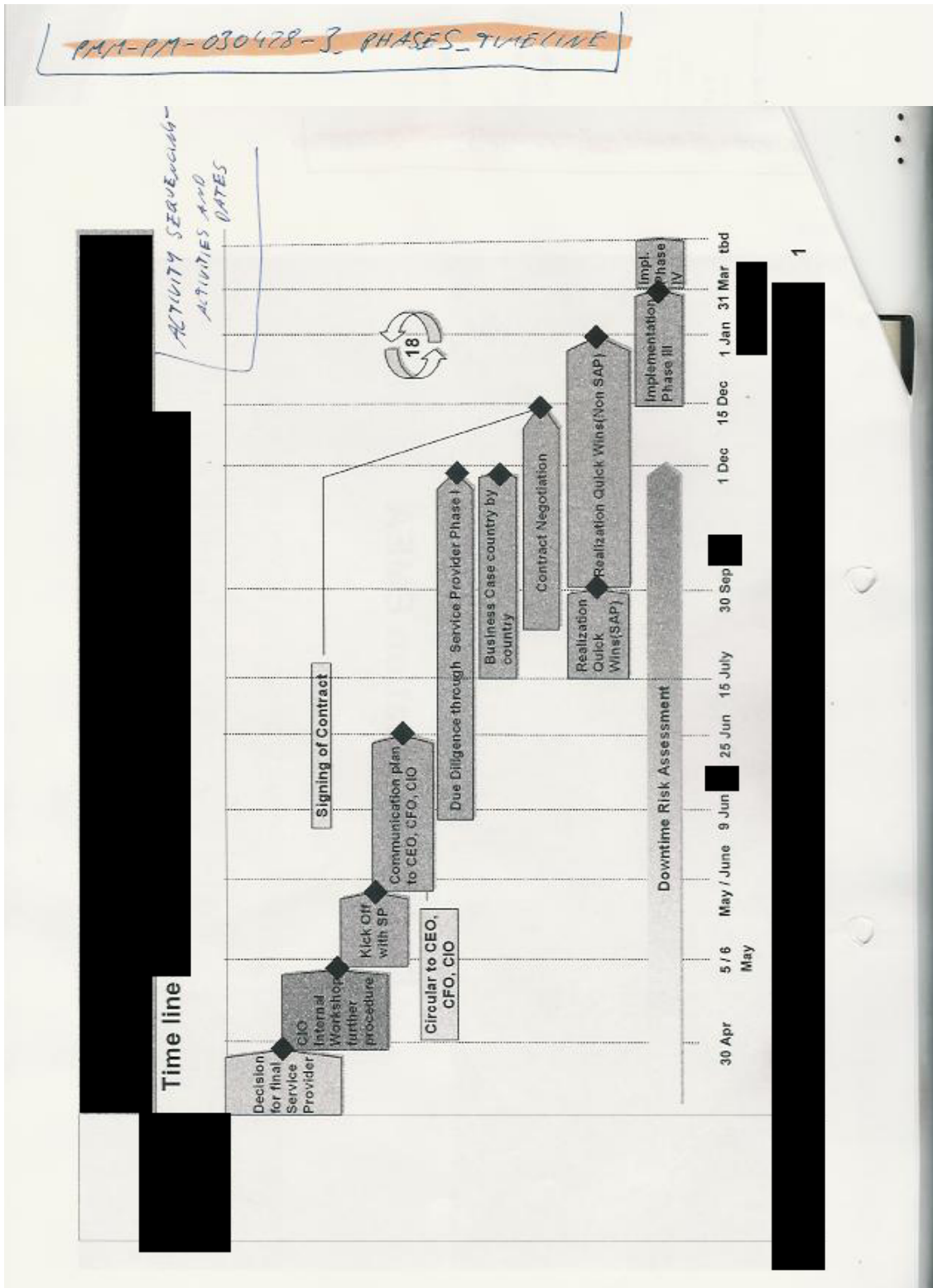


Figure 4) Example of a Document

Interview – Field Note Extract

int-030827-owner	
1 27th August: Interview Owner	
1.1 Questions	
1) What is the project objective for DC (general and detailed)? 2) How important is DC for Undertaking-Company? 3) What is your position in the project? 4) Who is project manager of DC? 5) How have you been involved in the contract proposal for Vendor-Company01? 6) How important is DC Project for you? 7) Why was the project management suggestion of May 28 th by PM not executed? 8) Why was the project team reduced by at least four consultants? 9) Can you send me the meeting minutes from Madrid?	
1.2 Interview	
(jot-030827-interview_Owner)...	
Question 4)	
<p>Question number 4: "Who is the project manager of DC?" Owner answered: "PM was it until last month [from April until July]. The change was necessary because of the lack of technical knowledge." I asked: Who was the former project manager?" Owner explained: "PM-01 was the last project manager from May last year until January. PM-01 was working for Department4, the department which is responsible to provide the feasibility study. After the green light was given for the project the project was handed over to a department which will execute the project like the Department1 department. This handing over took place in January and February which resulted in a mismatch in responsibilities of the project."</p> <p>Owner continued: "PM-01 thought he was not responsible anymore. The transfer from Depmartment4 to Department1 was not good" I asked: "Why?" Owner answered by telling me the history: "I joined in October [last year] and questioned the value and approach of the project from the first day. I created a lot of pressure on Department4. The idea was to get rid of the project and therefore I was criticising it heavily." (Other explanation could be – Owner saw the political value of the DC governance and wanted to have this project – ask PM-01)."</p> <p>Owner continued: "Furthermore I put a lot of pressure on PM-01 and ManagerPM-01. [That is why they wanted to get out of the project but they were incompetent in their job.] Even if they wanted to dump the project to me they it was crazy because they should have done it formally with a letter."</p> <p>Owner explained to me their behaviour by telling me the general attitude of Undertaking-Company employees in his view: "Most people do not want to make decisions. They say only yes in a meeting but they do not follow up." Furthermore Owner added: "... they can not be fired for this in Undertaking-Company. For me this is 'passive resistance' and a big problem."</p>	<div>Kommentar [t1]: Staff acquisition – Owner confirmed PM was PM until July 03.</div> <div>Kommentar [t2]: History of DC – DEPARTMENT4 with PM-01 made feasibility study until Jan 2003, afterwards project to execution in Owner department.</div> <div>Kommentar [H3]: Core competency integration – initiation and planning phase by DEPARTMENT4 and execution and handing over by DEPARTMENT1</div> <div>Kommentar [t4]: Stake Role Owner – joined in 10.02 Department1.</div> <div>Kommentar [H5]: Honesty and Ethics – Owner created lot of pressure he wanted to get rid of DC, PM-01 said he wanted DC under his control.</div> <div>Kommentar [t6]: Ch authority Owner – said PM-01 was incompetent</div> <div>Kommentar [H7]: Honesty and Ethics – Owner caused first project manager to leave project!!</div> <div>Kommentar [t8]: Local meaning – Owner told me about yes mentality and not making decision.</div> <div>Kommentar [t9]: Local meaning – Owner said that yes mentality is passive resistance and they can not be fired for this.</div>

Figure 5) Field Note Extract 'Interview'

Appendix E – Holistic View

	<u>Project1</u>	<u>Project2</u>
<u>Socio-Eco-Environment</u>	<u>no</u>	<u>no</u>
<u>Organizational Environment</u>	<u>no</u>	<u>no</u>
Project Strategy	no	no
Organizational Structure	basic	no
Strategic Communication	no	no
Performance Measurement	no	no
Core Competency Integration	no	no
Project Management Professionalism	no	no
Pay	yes	yes
Selection and Retention	no	no
Nurture Competence	no	basic
Make Project Management a Career Track	no	yes
Performance Evaluation	no	no
Critically Analyze Alternatives and Opportunities	no	no
Honesty and Ethics	no	no
Project Management Methodology	no	yes
Project Integration Management	no	basic
Project Scope Management	no	yes
Project Time Management	no	no
Project Cost Management	no	yes
Project Quality Management	no	yes
Project Human Resource Management	no	no
Project Communication Management	no	yes
Project Risk Management	no	basic
Project Procurement Management	no	--
Project Change Management	no	yes

Table 12) Socioeconomic and Organizational Environment

<u>Applied Project Management</u>	<u>Project1</u>	<u>Project2</u>
	<u>no</u>	<u>yes</u>
Project Integration Management	no	yes
Project Scope Management	no	yes
Project Time Management	no	yes
Project Cost Management	no	basic
Project Quality Management	no	yes
Project Human Resource Management	no	no
Project Communication Management	no	basic
Project Risk Management	no	no
Project Procurement Management	excluded	excluded
Project Change Management	no	yes

Table 13) Project Management Knowledge Areas

Appendix F – Motivation

	<u>User01</u>	<u>User02</u>	<u>Vendor01</u>	<u>Vendor02</u>	<u>PM</u>	<u>Owner</u>
<u>Sense of Choice</u>	<u>no</u>	<u>no</u>	<u>no</u>	<u>no</u>	<u>no</u>	<u>yes</u>
Delegating Authority	no	no	yes	yes	no	yes
Demonstrating Trust	no	no	no	no	no	yes
Providing Security	no	no	no	no	no	no
Providing a Clear Purpose	no	no	no	no	no	yes
Providing Information	no	no	no	no	no	yes
<u>Sense of Meaningfulness</u>	<u>yes</u>	<u>yes</u>	<u>yes</u>	<u>yes</u>	<u>no</u>	<u>yes</u>
Building a Non-Cynical Climate	no	no	no	no	no	no
Clearly Identifying Passions	yes	yes	yes	yes	no	yes
Providing an Exciting Vision	yes	yes	yes	yes	yes	yes
Ensuring Relevant Task Purposes	yes	yes	yes	yes	no	yes
Providing Whole Tasks	yes	yes	yes	yes	no	yes

Source: Integrative Model by Thomas and Tymon (1997)

Table 14) Opportunity Rewards in Project1

	<u>User01</u>	<u>User02</u>	<u>Vendor01</u>	<u>Vendor02</u>	<u>PM</u>	<u>Owner</u>
<u>Sense of Competence</u>	<u>no</u>	<u>no</u>	<u>no</u>	<u>no</u>	<u>no</u>	<u>no</u>
Providing Knowledge	yes	yes	yes	yes	no	yes
Providing Appreciative Feedback	no	no	no	no	no	no
Recognising Skill	no	no	no	no	no	no
Managing Challenge	yes	yes	yes	yes	no	yes
Fostering High, Non-Comp. Standards	no	no	no	no	no	no
<u>Sense of Progress</u>	<u>no</u>	<u>no</u>	<u>no</u>	<u>no</u>	<u>no</u>	<u>no</u>
Building a Collaborative Climate	no	no	no	no	no	no
Tracking Milestones	no	no	no	no	no	no
Celebrating Progress	no	no	no	no	no	no
Providing Access to Customers	yes	yes	yes	yes	no	yes
Measuring Improvements	no	no	no	no	no	no

Source: Integrative Model by Thomas and Tymon (1997)

Table 15) Achievement Rewards in Project1

	<u>PM</u>	<u>Owner</u>	<u>PM</u>	<u>PMtech</u>
<u>Sense of Choice</u>	<u>no</u>	<u>yes</u>	<u>yes</u>	<u>yes</u>
Delegating Authority	no	yes	yes	no
Demonstrating Trust	no	yes	yes	yes
Providing Security	no	no	yes	yes
Providing a Clear Purpose	no	yes	yes	yes
Providing Information	no	yes	yes	yes
<u>Sense of Meaningfulness</u>	<u>no</u>	<u>yes</u>	<u>yes</u>	<u>yes</u>
Building a Non-Cynical Climate	no	no	yes	yes
Clearly Identifying Passions	no	yes	yes	yes
Providing an Exciting Vision	yes	yes	yes	yes
Ensuring Relevant Task Purposes	no	yes	yes	yes
Providing Whole Tasks	no	yes	yes	yes

Source: Integrative Model by Thomas and Tymon (1997)

Table 16) Units PM – Opportunity Rewards

	<u>PM</u>	<u>Owner</u>	<u>PM</u>	<u>PMtech</u>
<u>Sense of Competence</u>	<u>no</u>	<u>no</u>	<u>yes</u>	<u>no</u>
Providing Knowledge	no	yes	yes	yes
Providing Appreciative Feedback	no	no	yes	no
Recognising Skill	no	no	no	no
Managing Challenge	no	yes	yes	yes
Fostering High, Non-Comparative Standards	no	no	yes	no
<u>Sense of Progress</u>	<u>no</u>	<u>no</u>	<u>yes</u>	<u>yes</u>
Building a Collaborative Climate	no	no	yes	yes
Tracking Milestones	no	no	yes	yes
Celebrating Progress	no	no	no	no
Providing Access to Customers	no	yes	yes	no
Measuring Improvements	no	no	yes	yes

Source: Integrative Model by Thomas and Tymon (1997)

Table 17) Units PM – Accomplishment Rewards

Abbreviations

ANSI	American National Standard Institute
APM	Association for Project Managers
ATP	Acceptance Test Procedure
BAFO	Best and Final Offer
BoK	Body of Knowledge
CEO	Chief Executive Officer
CET	Cognitive Evaluation Theory
CF	Central Finance
CIO	Chief Information Officer
CSC	Computer Sciences Corporation
CSF	Critical Success Factor
DD	Due Diligence
EBIT	Earnings Before Interest and Tax
FC	Frame Contract
FOA	First Office Application
GPM	Gesellschaft für Projektmanagement
HLD	High Level Design
IBM	Industrial Business Machines
ICB	IPMA Competence Baseline
IPMA	International Project Manager Association
IS	Information Systems
IT	Information Technology
JCT	Job Characteristics Theory
JF	Jour Fixe meeting
KPI	Key Performance Indicator
Local CIO	Corporate Information Office
LoI	Letter of Intend
NSG	Networks Steering Group
NW	Networks
OIT	Organismic Integration Theory
OPM3®	Organizational Project Management Maturity Model

PFM	Projectized Functional Management
PMB	Project Management Board
PMBok®	Project Management Body of Knowledge
PMI®	Project Management Institute
PRD	Project Requirement Document
PRINCE	PRojects IN Controlled Environments
RFATS	Ready for Acceptance Test Statement
RfP	Request for Proposal
RIA	Rapid Impact Assessment
SBS	Siemens Business Services
SDT	Self-Determination Theory
SLA	Service Level Agreement
STC	Steering Committee
WAN	Wide Area Network
WBS	Work Breakdown Structure
WWPMM	WorldWide Project Management Methodology

References

- Amabile T.M., Hill K.G., Hennessey B.A. (1994); The work preference inventory: assessing intrinsic and extrinsic motivational orientations; *Journal of Personality and Social Psychology*, 66 (5), 950-967
- Ambler S. (1999); Comprehensive approach cuts project failures; *Computing Canada*, 25 (1), 15
- Ambrose M. L., Kulik C. T. (1999); Old Friends, New Faces: Motivation Research in the 1990s; *Journal of Management*, 25 (3), 231-292
- Analoui F. (1995); Workplace sabotage: its styles, motives and management; *Journal of Management Development*, 14 (7), 48-65
- Andrasik F. (1989); Organizational behaviour modifications in business settings: a methodological and content review; *Journal of Organizational Behaviour Management*, 10, 59-77
- Angrosino M. W., Mays de Perez K. A. (2000); Rethinking Observation: From Method to Context; in Denzin N. K., Lincoln Y. S. *Handbook of Qualitative Research*; Thousand Oaks, CA: Sage; 673-702
- APM (2000); *Association of Project Management Body of Knowledge*; Fourth Edition
- APM (2003); The Association for Project Management – About us;
<http://www.apm.org.uk>
- Ashkanasy N. M., Härtel C. E. J., Daus C. S. (2002); Diversity and Emotion: The New Frontiers in Organizational Behaviour Research; *Journal of Management*, 28 (3), 307-338
- Avison D., Baserville R., Myers M. (2001); Controlling Action Research Projects; *Information Technology & People*, 14 (1), 28-45
- Baccarini D. (1999); The logical framework method for defining project success; *Project Management Journal*, 30 (4), 25-32
- Baccarini D., Salm G., Love P. E. D. (2004); Management of Risks in Information Technology Projects; *Industrial Management + Data Systems*, 104 (3/4), 286-295
- Baumeister R. F. (1996); Self-Regulation and Ego Threat; in Gollwitzer P. M., Bargh J. A., *The Psychology of Action*; New York: The Guilford Press, 27-47
- Belassi W., Tukel I. O. (1996); A new framework for determining critical success/failure factors in projects; *International Journal of Project Management*, 14 (3), 141-151

- Belout A. (1998); Effects of human resource management on project effectiveness and success: Toward a new conceptual framework; *International Journal of Project Management*, 16 (1), 21-26
- Besner C., Hobbs B. (2006); The Perceived Value and Potential Contribution of Project Management Practices to Project Success; *Project Management Journal*, 37 (3), 37-48
- Blomquist T., Müller R. (2006); Practices, Roles, and Responsibilities of Middle Managers in Program and Portfolio Management; *Project Management Journal*, 37 (1), 52-66
- Bonazzi G. (1983); Scapegoating in complex organisations: the results of a study of symbolic blame-giving in Italian and French Public Administration; *Organisational Studies*, 4 (1), 1-18
- Bonnal P., Gourc D., Lacoste G. (2002); The live cycle of technical projects; *Project Management Journal*, 33 (1), 12-19
- Bourne L., Walker D. H. T. (1997); Theses research report notes: Project relationship management and the Stakeholder CircleTM; *International Journal of Managing Projects in Business*, 1 (1), 125-130
- Bournois F., Chevalier F. (1998); Doing research with foreign colleagues: a project-life cycle approach; *Journal of Managerial Psychology*, 13 (3/4), 206-213
- Bruke R. (2001); *Project Management – Planning & Control Techniques*, 3rd edition; United Kingdom and Australia; John Wiley & Sons Ltd.
- Bryde D. J. (1997); Underpinning modern project management with TQM principles; *The TQM Magazine*, 9 (3), 231-238
- Buch K., Rivers D. (2001); TQM: the role of leadership and culture; *Leadership & Organization Development Journal*, 22 (8), 365-371
- Bumpus M. A., Olbeter S., Glover S. H. (1998); Influences of situational characteristics on intrinsic motivation; *The Journal of Psychology*, 132 (4), 451-464
- Cameron J., Pierce W. D. (1994); Reinforcement, reward, and intrinsic motivation: A meta-analysis; *Review of Educational Research*, 64 (3) 363-423
- Campbell N.C.G., Graham J.L., Jolibert A., Meissner H.G. (1988); Marketing negotiations in France, Germany, the United Kingdom and the United States; *Journal of Marketing*, 52 April, 49-62
- Carter S. (1999a); Anatomy of a Qualitative Management PhD. Part One – Getting Started; *Management Research News*, 22 (11), 9-22

- Christenson D., Walker D. H. T. (2004); Understanding the Role of “Vision” in Project Success; *Project Management Journal*, 35 (3), 39-52
- Cleland D. I., Bidanda B., Chung C. A. (1995); Human issues in technology implementation; *Industrial Management*, 37 (4), 22
- Componation P. J., Utlely D. R., Swain J. J. (2001); Using risk reduction to measure team performance; *Engineering Management Journal*, 13 (4), 27-34
- Computer Sciences Corporation (1999); *CSC Catalyst Project Management*; Release 4.0 Version 1.0
- Cooper K. G. (1993); The rework cycle: benchmarks for the project manager; *Project Management Journal*, 24 (1), 17-21
- Cooper K. G. (1994); The \$2000 hour: How managers influence project performance through the rework cycle; *Project Management Journal*, 25 (1), 11-24
- Cordery J. L., Mueller W. S., Smith L. M. (1991); Attitudinal and behavioural effects of autonomous group working: A longitudinal field study; *Academy of Management Journal*, 34, 464-476
- Coronado R. B., Antony J. (2002); Critical success factors for the successful implementation of six sigma projects in organisations; *The TQM Magazine*, 14 (2), 92-99
- Cort K. T., Griffith D. A., White D. S. (2007); An attribution theory approach for understanding the internationalization of professional service firms; *International Marketing Review*; 24 (1); 9-25
- Courger D. J. (1988); Motivating IS personnel (information systems); *Datamation*; 34 (18), 59-61
- Crawford L. (2006); Developing Organizational Project Management Capability: Theory and Practice; *Project Management Journal*, 36 (3), 74-97
- Creswell J. W. (1998); *Qualitative Inquiry and Research Design – Choosing among Five Traditions*; Thousand Oaks: Sage Publications
- Creswell J. W. (2003); *Research Design – Qualitative, Quantitative, and Mixed Methods Approaches*; 2nd edition; Thousand Oaks: Sage Publications
- Crowther D. (2004); *The philosophy of management research*; Course handout
- Dalcher D. (2006); Editorial – Software Process: The Key to Success; *Software Process Improvement and Practice*, 12, 93

- Dalcher D. (2008); Editorial – Managing Software Processes: Do We Need New Approaches?; *Software Process Improvement and Practice*, 13, 383-385
- Daly D., Kleiner B. H. (1995); How to motivate problem employees; *MCB University Press*, 44 (2), 5-7
- Daniel A. (1998); *Scapegoats for a Profession: Uncovering Procedural Injustice*; Amsterdam: Harwood Academic Publishers
- Daniels A. C. (1999); *Bringing Out the Best in People – how to apply the astonishing power of Positive Reinforcement* - new and updated edition; New York, Mc Graw Hill
- Datta S., Mukherjee S. K. (2001); Developing a risk management matrix for effective project planning – an empirical study; *Project Management Journal*, 32 (2), 45-57
- Deci E. L. (1971); Effects of externally mediated rewards on intrinsic motivation; *Journal of Personality and Social Psychology*, 18, 105-115
- Deci E. L. (1995); *Why we do What we do*; New York: Penguin Books
- Deci E. L. (2001); SDT: Controversies: The Rewards Controversy; <http://psych.rochester.edu/SDT/theory.html>
- Deci E. L., Ryan R. M. (1985); *Intrinsic motivation and self-determination in human behavior*; New York: Plenum Press
- Deci E. L., Ryan R. M. (2002); *Handbook of Self-Determination Research*; New York: The University of Rochester Press
- Deci E.L., Koestner R., Ryan R.M. (1999); A meta-analytic review of experiments examining the effects of extrinsic rewards on intrinsic motivation; *Psychological Bulletin*; Vol. 125; No. 6; Pg. 627-668
- Deming W. E. (1993); *The new economics for industry, government, education*; Cambridge, Mass.: MIT Center for Advanced Engineering Study
- Denscombe M. (2007); *The Good Research Guide, 3rd Edition*; New York: Open University Press
- Dey C. (2001); Methodological issues – The use of critical ethnography as an active research methodology; *Accounting, Auditing & Accountability Journal*, 15 (1), 106-121
- Dinsmore, P. C. (1990); *Human factors in project management*; New York: American Management Association

- Durling D. (2002); Discourses on research and the PhD in Design; *Quality Assurance in Education*, 10 (2), 79-85
- Dvir D., Lipovetsky S., Shenhar A., Tishler A. (1998); In search of project classification: a non-universal approach to project success factors; *Research Policy*, 27, 915-935
- Dvir D., Raz T., Shenhar A. J. (2003); An empirical analysis of the relationship between project planning and project success; *International Journal of Project management*, 21, 89-95
- Dvir D., Sadeh A., Malach-Pines A. (2006); Projects and Project Managers: The Relationship Between Project Managers' Personality, Project Types, and Project Success; *Project Management Journal*, 37 (5), 36-48
- Dwyer F.R., Schurr R.H. and Oh, S. (1987); Developing buyer-seller relationships; *Journal of Marketing*, 51, April, 11-27
- Eccles J. S., Wigfield A. (2002); Motivational beliefs, values, and goals; *Annual Review of Psychology*, 109-132
- Eisenhardt K. M. (1989); Building theories from case study research; *Academy of Management Review*, 14, 532-550
- Emerson R. M., Fretz R. I., Shaw L. L. (1995); *Writing Ethnographic Fieldnotes*; Chicago: The University of Chicago Press
- Finegan J. E. (2000); The impact of person and organizational values on organizational commitment; *Journal of Occupational and Organizational Psychology*, 73 (2), 149
- Frey B. S., Osterloh M. (2002); *Successful Management by Motivation*; Heidelberg; Axel Springer Verlag
- Furnham A., Brewin C. R., O'Kelly H. (1994); Cognitive style and attitudes to work; *Human Relations*; 47 (12); 1509-1521
- Gabris G. T., Simo G. (1995); Public sector motivation as an independent variable affecting career decisions; *Public Personnel Management*, 24, 33-50
- Gee C., Burke M. E. (2001); Realising potential: the new motivation game; *Management Decision*, 39 (2), 131-136
- Gesellschaft für Projektmanagement - GPM (2004); *Wissensspeicher - Lehrgang Projektmanagement*, 269 - 490
- Gilliland S. W., Landis R. S. (1992); Quality and quantity goals in a complex decision task: Strategies and outcomes; *Journal of Applied Psychology*, 77, 672-681

- Girard R. (1986); *The Scapegoat*; Baltimore: John Hopkins University Press
- Globerson S., Zwikael O. (2002); The impact of the project manager on project management planning processes; *Project Management Journal*, 33 (3), 58-64
- Gneezy U., Rustichini A. (2000); Pay Enough or Don't Pay at all; *Quarterly Journal of Economics*, 115 (3), 791-807
- Gomez C., Rosen B. (1994); *The relationship between managerial trust, employee empowerment, and employee performance*; Paper presented at the Academy of Management meetings; 14-17 August; Dallas
- Gooch J. (1997); Managing for demonstrably effective IT projects; *Information Management & Computer Security*, 5 (4), 133-137
- Grant K. P., Graham T. S., Heberling M. E. (2001); The Project manager and Project Team Involvement: Implications for Project Leadership; *Journal of Leadership Studies*, 4 (7), 32
- Guzzo R.A., Jette R.D., Katzell R.A. (1985); The effects of psychologically based intervention programs on worker productivity: A meta-analysis; *Personnel Psychology*, 38, 275-291
- Hacker M. (2000); The impact of top performers on project teams; *Team Performance Management: An International Journal*, 6 (5/6), 85-89
- Hackman J. R., Oldham G. R. (1976); Motivation through the design of work: Test of a theory; *Organizational Behaviour and Human Performance*, 16 (2), 250-279
- Hackman J. R., Oldham G. R., Janson R., Purdy K. (1975); A new strategy for job enrichment; *California Management Review*, 17 (3), 57-71
- Harris E. (1999); Project Risk Assessment: A European Field Study, *British Accounting Review*, 31 (3), 347-371
- Harris E. (2009); *Strategic Project Risk Appraisal & Management*; Farnham: Grower
- Hartman F., Ashrafi R. A. (2002); Project management in the information systems and information technologies industries; *Project Management Journal*, 33 (3), 5-15
- Hartmann F. (2003); *Research Program The role of Trust in Projects, Programs and Corporate Management*; various papers presented to Project Management Days 2003 in Vienna, October 2003
- Helm J., Remington K. (2005); Effective Project Sponsorship – An Evaluation of the Role of the Executive Sponsor in Complex Infrastructure Projects by Senior Project Managers; *Project Management Journal*, 36 (3), 51-61

- Herbig P., Genestre A. (1997); International motivational differences; *Management Decision*, 35 (7), 562-567
- Hersey, Blanchard and Johnson (2001); *Management of Organizational Behaviour*, 8th edition; New York, Prentice Hall
- Herzberg F. (1982); *The managerial choice: to be efficient and to be human*; Salt Lake City; UT; Olympus Publishing
- Holland P. J., Hecker R., Stehen J. (2002); Human resource strategies and organisational structures for managing gold-collar workers; *Journal of European Industrial Training*, 26/ 2/ 3/ 4, 72-80
- Holloway J., Todres L. (2003); The status of method: flexibility, consistency and coherence; *Qualitative Research*, 3 (3), 345-357
- Hormozi A. M., McMinn R. D., Nzeogwu O. (2000); The Project Life Cycle: The Termination Phase; *SAM Advanced management Journal*, 65 (1), 45-56
- Hughes J. R. (2000); Successful projects need good people managers; *ComputerWorld Canada*, 16 (20), 19-20
- Hyväri I. (2006); Success of Projects in Different Organizational Conditions; *Project Management Journal*, 37 (4), 31-41
- Ibbs W. C., Kwak Y. H. (2000); Assessing project management maturity; *Project Management Journal*, 31 (1), 32-43
- IBM Corporation (2001); *IBM Worldwide Project Management Methodology*; Release 1.2
- ICB (1999); *IPMA Competence Baseline*; Version 2.0; United Kingdom: IPMA International Project Management Association
- Icmeli-Tukel O., Rom W. O. (1997); Ensuring quality in resource constrained project scheduling; *European Journal of Operational Research*, 103, 483-496
- Icmeli-Tukel O., Rom W. O. (1998); Analysis of the characteristics of projects in diverse industries; *Journal of Operations management*, 16, 43-61
- Icmeli-Tukel O., Rom W. O. (2001); An empirical investigation of project evaluation criteria; *International Journal of Operations & Production Management*, 21 (3), 400-416
- IPMA (2003); A brief history of IPMA; <http://www.ipma.ch>
- Jaafari A. (2003); *Project management in the 21st century: the human and behavioural challenges*; Research Conference PM Days '03 Vienna October 29th 2003

- Janesick V. J. (2000); Choreography of Qualitative Research Design: Minutes, Improvisations, and Crystallization; in N.K. Denzin and Y. S. Lincoln (eds) *Handbook of Qualitative Research* (2nd ed); 379-399; Thousand Oaks; CA: Sage Publication
- Janz B. D., Colquitt J. A., Noe R. A. (1997); Knowledge worker team development, and contextual support variables; *Personal Psychology*, 50, 877-904
- Javed T., Manzil-E-Maqsood, Durrani Q. S. (2006); Managing Geographically Distributed Clients Throughout the Project Management Life Cycle; *Project Management Institute*, 37 (5), 76-87
- Jiang J. J., Klein C., Margulis S. (1998); Important behavioural skills for IS project managers: The judgments of experienced IS professionals; *Project Management Journal*, 29 (1), 39-44
- Jiang J. J., Klein G. (2000); Software development risks to project effectiveness; *The Journal of Systems and Software*, 52, 3-10
- Jiang J. J., Klein G. (2001); Software Project Risks and Development Focus; *Project Management Institute*, 32 (1), 4-9
- Jiang J. J., Klein G., Chen E. (2002a); The importance of building a foundation for user involvement in information system projects; *Project Management Journal*, 33 (1), 20-26
- Jiang J. J., Klein G., Chen H., Lin L. (2002b); Reducing user-related risks during and prior to system development; *International Journal of Project Management*, 20, 507-515
- Jiang J. J., Klein G., Chen J. J. (2001); The relative influence of IS project implementation policies and project leadership on eventual outcomes; *Project Management Journal*, 32 (3), 49-55
- Jiang J. J., Klein G., Means T. L. (2000); Project risk impact on software development team performance; *Project Management Journal*, 31 (4)
- Jiang J.J., Klein G., Crampton S. (1998); *System development risks and project team performance*; The proceeding of 1998 DSI national meeting, Las Vegas
- Judge T. A., Higgins C. A., Thoresen C. J., Barrick M. R. (1999); The big five personality traits, general mental ability, and career success across the life span; *Personnel Psychology*, 52 (3), 621-652
- Jugdev K., Müller R. (2005); A Retrospective Look at Our Evolving Understanding of Project Success; *Project Management Journal*, 36 (4), 19-31
- Kendall G. (2003); Profit-Driven Portfolios; *PM Network*; May 2003, 48-53

- Kendra K., Taplin L. (2004); Project Success: A Cultural Framework; *Project Management Journal*, 35 (1), 30-45
- Kinsella S. M. (2002); Activity-based costing: Does it warrant inclusion in A Guide to the Project Management Body of Knowledge (PMBOK guide)?; *Project Management Journal*, 33 (2), 49-56
- Kirkman B. L., Gibson C. B., Shapiro D. L. (2001); „Exporting“ Teams: Enhancing the Implementation and Effectiveness of Work Teams in Global Affiliates; *Organizational Dynamics*, 30 (1), 12-29
- Kloppenborg T. J., Opfer W. A. (2002); The current state of project management research: Trends, interpretations, and predictions; *Project Management Journal*, 33 (2), 5-18
- Kloppenborg T. J., Petrick J. A. (2002); *Managing Project Quality*; Management Concepts Inc.
- Kloppenborg T. J., Tesch D., Manolis C., Heitkamp M. (2006); An Empirical Investigation of the Sponsor's Role in Project Initiation; *Project Management Journal*, 37 (3), 16-25
- Konrad A. M., Deckop J. (2001); Human resource management trends in the USA; *International Journal of Manpower*, 22 (2), 269-278
- Kotnour T. (2000); Organizational learning practices in the project management environment; *International Journal of Quality & Reliability Management*, 17 (4/5), 393-406
- Kuprenas J. A., Jung C., Fakhouri A. S., Jreij W. G. (2000); Project manager workload – assessment of values and influences; *Project Management Journal*, 31 (4)
- Kuruppuarachchi P. R. (2001); How IT project managers are leading change; *Management Services*, 45 (12), 8-11
- Kuruppuarachchi P. R., Mandala P., Smith R. (2002); IT project implementation strategies for effective changes: a critical review; *Logistics Information Management*, 15 (2), 126-137
- Labaree R. V. (2002); The risk of ‘going observationalist’: negotiating the hidden dilemmas of being an insider participant observer; *Qualitative Research*, 2 (1), 97-122
- Langbert M. (2002); Continuous improvement in the history of human resource management; *Management Decision*, 40 (10), 932-937
- Latham G. P., Locke E. A. (1991); Self-regulation through goal-setting; *Organizational Behaviour and Human Decision Processes*, 50, 212-247

- Lawler III Ed (1992); *The Ultimate Advantage: Creating the High Involvement Organization*; San Francisco: Jossey-Bass Inc.; 3-24
- Lecompete M. (2002); The transformation of ethnographic practice: past and current challenges; *Qualitative Research*, 2 (3), 283-299
- Legris P., Colletterte P. (2006); A Roadmap for IT Project Implementation: Integrating Stakeholders and Change Management Issues; *Project Management Institute*, 37 (5), 64-75
- Leminen S. (2001); Gaps in buyer-seller relationships; *Management Decision*, 39 (3), 180-193
- Liden R. C., Wayne S. J., Bradway L., Murphy S. (1994); *A field investigation of individual empowerment, group empowerment and task interdependence*; Paper presented at the Academy of Management meetings; 14-17 August; Dallas
- Locke E. A. (1996); Motivation through conscious goal setting; *Applied and Preventive Psychology*, 5, 117-124
- Madden J. (1996); One Hundred Rules for NASA Project Managers; www.uc-adc1.uc.utoledo.edu/100_rules.html
- Mahaney R. C., Lederer A. L. (2006); The Effect of Intrinsic and Extrinsic Rewards for Developers on Information Systems Project Success; *Project Management Journal*, 37 (4), 42-54
- Martinsuo M. (2001); Balancing large scope and project manageability in a qualitative research design; *Management Decision*, 39 (7), 539-550
- McCray G. E., Purvis R. L. (2002); Project Management under uncertainty: The impact of heuristics and biases; *Project Management Journal*, 33 (1), 49-57
- Meredith J. R., Mantel S. J. (1989); *Project management: A managerial approach* (2nd ed.); New York: John Wiley & Sons
- Miles M. B., Huberman A. M. (1994); *Qualitative data Analysis. An Expanded Sourcebook*, 2nd ed.; Sage; Thousand Oaks; CA
- Miller W. L., Carbtree B. F. (1992); *Doing qualitative research*; CA: Sage, Newbury Park, 3-28
- Milosevic D. (2001); Impact of project management standardization on project effectiveness; *Engineering Management Journal*, 13 (4), 9-16
- Mone M. A., Shalley C. E. (1995); Effects of task complexity and goal specificity on change in strategy and performance over time; *Human Performance*, 8, 243-252

- Morris W. G. P., Morris P. (2001); Updating the project management bodies of knowledge; *Project Management Journal*, 32 (3), 21-30
- Müller R., Turner J. R. (2007); Matching the project manager's leadership style to project type; *International Journal of Project Management*, 25, 21-32
- Mullings B. (1999); Insider or Outsider, Both or Neither: Some Dilemmas of Interviewing in a Cross-Cultural Setting; *GeoForum*, 30, 337-350
- Munns A. K., Bjeirmi B. F. (1996); The role of project management in achieving project success; *International Journal of Project Management*, 14 (2), 81-87
- Murray S. B. (2003); A spy, a shill, a go-between, or a sociologist: unveiling the 'observer' in participant observer; *Qualitative Research*, 3 (3), 377-395
- Nah F. F., Lau J. L., Kuang J. (2001); Critical factors for successful implementation of enterprise systems; *Business Process Management Journal*, 7 (3), 285-296
- Nandhakumar J., Avison D. E. (1999); The fiction of methodological development: a field study of information systems development; *Information Technology & People*, 12 (2), 176-191
- Nandhakumar J., Jones M. (2002); Development gain? Participant observation in interpretive management information systems research; *Qualitative Research*, 2 (3), 323-334
- Niazi M., Wilson D., Zowghi, D. (2006); Critical Success Factors for Software Process Improvement Implementation: An Empirical Study; *Software Process Improvement and Practice*, 11, 193-211
- Nogueira J. C., Raz T. (2006); Structure and Flexibility of Project Teams Under Turbulent Environments: An Application of Agent-Based Simulation; *Project Management Journal*, 37 (2), 5-10
- Orwig R. A., Brennan L. L. (2000); An integrated view of project and quality management for project-based organizations; *International Journal of Quality & Reliability Management*, 17 (4/5), 351-363
- Ovum Ltd (1995); Information-system failure; *Ovum Ltd Report*, London, 3
- Palmer M. (2002); How an effective project culture can help to achieve business success: establishing a project culture in Kimberly-Clark Europe; *Industrial and Commercial Training*, 34 (3), 101-105
- Peled A. (2000); Creating winning information technology project teams in the public sector; *Team Performance Management*, 6 (1/2), 6-14

- Pinder C. C. (1998); *Work motivation in organizational behaviour*; Upper Saddle River NJ; Prentice-Hall
- Pinto J. (2002); Project Management 2002; *Research Technology Management*, 45 (2), 22-37
- Pinto J. K. and Prescott J. (1988); Variations in success factors over the stages in the project life cycle; *Journal of Management*, 14 (1), 5-18
- Pinto J. K., Covin J. G. (1989); Critical factors in project implementation: a comparison of construction and R&D projects; *Technovation*, 9, 49-62
- Pinto J. K., Kharbanda O. P. (1996); How to fail in project management (without really trying); *Business Horizons*, 39 (4), 45-54
- Pinto J. K., Slevin D. P. (1988); Project success: definitions and measurement techniques; *Project Management Journal*, 19 (3), 67-73
- PMI (2003); Project Management Institute – Munich Chapter; www.pmi-muc.de
- Porter, M. E. (1985); *Competitive Advantage*; Pg. 169-171; New York: The Free Press
- Project Management Institute (2000), *A Guide to the Project Management Body of Knowledge* (PMBOK® Guide) 2000 edition, Pennsylvania, Project Management Institute
- Project Management Institute (2003); *Organizational Project Management Maturity Model (OPM3)*; www.pmi.org
- Project Management Institute (2004), *A Guide to the Project Management Body of Knowledge* (PMBOK® Guide) 3rd edition, Pennsylvania, Project Management Institute
- Project Management Institute (2008), *A Guide to the Project Management Body of Knowledge* (PMBOK® Guide) 4th edition, Pennsylvania, Project Management Institute
- Pruit D.G. (1981), *Negotiation Behaviour*, Academic Press, New York, NY
- Rabey G. (2000); Whither HR? Don't people matter anymore?; *Industrial and Commercial Training*, 32 (1)
- Reich B. H., Wee S. Y. (2006); Searching for Knowledge in the PMBoK® Guide; *Project Management Journal*, 37 (2), 11-26
- Reid P. (2002); A critical evaluation of the effect of participation in budget target setting on motivation; *Managerial Auditing Journal*, 17 (3)

- Reis D., Pena L. (2001); Reengineering the motivation to work; *Management Decision*, 39 (8), 666-675
- Remenyi D., Sherwood-Smith M. (1999); Maximise information systems value by continuous participative evaluation; *Logistics Information Management*, 12 (1/2), 14-31
- Renn R. W., Vandenberg R. J. (1995); The critical psychological states: an underrepresented component in job characteristics model research; *Journal of Management*, 21 (2), 279
- Riggle M. (2001); Breaking the Cycle of Failure; *Intelligent Enterprise*, 4 (12), 40-44
- Robert D. W. (1997); Creating an environment for project success; *Information Systems Management (USA)*, 14 (1), 73-77
- Romero J., Kleiner B. H. (2000); Global Trends in Motivating Employees; *Management Research News*, 23 (7/8)
- Rose K. (2001); The New Dynamic Project Management: Winning Through the Competitive Advantage; *Project Management Journal*, 32 (3), 57-58
- Rossman G. B. and Rallis S. F. (1998); *Learning in the Field: An Introduction to Qualitative Research*; CA, Thousand Oaks: Sage
- Ryan M. R., Sheldon K. M., Kasser T., Deci E. L. (1996); All Goals Are Not Created Equal: An Organismic Perspective on the Nature of Goals and Their Regulation; in Gollwitzer P. M., Bargh J. A., *The Psychology of Action*; New York: The Guilford Press, 7-47
- Ryan R. M., Deci E. L. (2000); Intrinsic and Extrinsic Motivations: Classic Definitions and New Directions; *Contemporary Educational Psychology*, 25, 54-67
- Saunders M., Phillip L, Thornhill A. (2003); *Research Methods for Business Students*, 3rd Edition; Harlow, UK: Pearson Education Ltd
- Savery L. K., Wingham D. L. (1991); Coping with the career plateau: Motivators for directors of child-care centers; *Leadership and Organization Development Journal*, 12, 20-23
- Schaffer B. (2002); Board assessments of managerial performance; *Journal of Managerial Psychology*, 17 (2), 95-115
- Schelle H. (2003); Ex occidente lux? – Kritische Bemerkungen zum PMBoK Guide 2000 Edition 1; *GPM- Projektmanagment* , 1, 34-37
- Schmid B., Adams J. (2008); Motivation in Project Management: The Project Manager's Perspective; *Project Management Journal*, 39, 2, 60-71

- Shenhar A. J., Dvir D., Levy O., Maltz A. C. (2001); Project Success: A Multidimensional Strategic Concept; *Long Range Planning*, 34, 699-725
- Shenhar A. J., Levy O., Dvir D. (1997); Mapping the Dimensions of Project Success; *Project Management Journal*, 28 (2), 5-13
- Spradley J. (1980); *Participant Observation*; Harcourt Brace College Publishers, Fort Worth, TX.
- Spreitzer G. M. (1995); Psychological empowerment in the workplace: Dimensions, measurement, and validation; *Academy of Management Journal*, 38 (5), 1442-1465
- Stajkovic AA. D., Luthans F. (1997); A meta-analysis of the effects of organizational behaviour modification on task performance 1975-95; *Academy of Management Journal*, 40, 1122-1149
- Stamatis D. H. (1994); Total quality management and project management; *Project Management Journal*, 25 (3), 48-54
- Standing C., Guilfoyle A., Lin C. and Love P. E. D. (2006); The attribution of success and failure in IT projects; *Industrial Management & Data Systems*, 106 (8), 1148-1165
- Standish Group International (1994); The CHAOS Report; <http://www.standishgroup.com>
- Standish Group International (1994b); The CHAOS Report - Continued; <http://www.standishgroup.com>
- Staw B. M., Boettger R. D. (1990); Task revision: a neglected form of work performance; *Academy of Management Journal*, 33, 534-559
- Stenbacka C. (2001); Quality research requires quality concepts of its own; *Management Decision*, 39 (7), 551-555
- Sutterfield S. J., Friday-Stroud S. S., Shivers-Blackwell S. L.(2006); A Case Study of Project and Stakeholder Management Failures: Lesson Learned; *Project Management Journal*, 37 (5), 26-35
- Telleria K. M., Little D., MacBryde J. (2002); Managing processes through teamwork; *Business Process Management Journal*, 8 (4), 338-350
- Tesch D., Kloppenborg T. J., Frolick M. N. (2007); IT Project Risk Factors: The project management profession perspective; *Journal of Computer Information Systems*, 47 (4), 61-69

- Tesch P. (1990); *Qualitative research: analysis types and software tools*; PA: Falmer, Bristol
- Thamhain H. J. (2004); Team Leadership Effectiveness in Technology-Base Project Environments; *Project Management Journal*, 35 (4), 35-46
- Thomas K. W. (2000); *Intrinsic Motivation at Work*; San Francisco; Berrett-Koehler Publishers Inc.
- Thomas K. W., Tymon Jr. W. G. (1994); Does empowerment always work: Understanding the role of intrinsic motivation and personal interpretation; *Journal of management Systems*, 6 (2), 1-13
- Thomas K. W., Tymon Jr. W. G. (1997); Bridging the motivation gap in total quality; *Quality Management Journal (USA)*, 4 (2), 80-96
- Thomas K. W., Velthouse B. A. (1990); Cognitive elements of empowerment: An “interpretive” model of intrinsic task motivation; *Academy of Management Review*, 15 (4)
- Tietjen M. A., Myers R. M. (1998); Motivation and job satisfaction; *Management Decision*, 36 (4), 226-231
- Toney F., Powers R. (1997); *Best Practices of Project Management Groups in Large Functional Organizations*; Pennsylvania; Project Management Institute
- Turner J. R. (2006); Project Management Research Conferences 2006; *International Journal of Project Management*, 23, 573-574
- Turner J. R., Müller R. (2005); The Project Manager’s Leadership Style as a Success Factor on Projects: A Literature Review; *Project Management Journal*, 36 (1), 49-61
- Verzuh E. (1999); *The Fast Forward MBA in Project Management*; New York: John Wiley & Sons, Inc.; 15-17
- Vickers M. H. (1999); Information technology development methodologies; *The Journal of Management Development*, 18 (3), 255-272
- Walsham G. (1995); Interpretive case studies in IS research: nature and method; *European Journal of Information Systems*, 4 (2), 74-81
- Wateridge J. (1998); How can IS/IT projects be measured for success?; *International Journal of Project Management*, 16 (1), 59-63
- Weerd-Nederhof de P. C. (2001); Qualitative case study research. The case of a PhD research project on organising and managing new product development systems; *Management Decision*, 39 (7), 513-538

- Weiner B. (1986); *An Attributional Theory of Motivation and Emotion*; New York, NY: Springer Verlag
- Wiersma U. J. (1992); The effects of extrinsic rewards in intrinsic motivation: a meta-analysis; *Journal of Occupational and Organizational Psychology*, 65 (2), 101-114
- Wiley C. (1997); What motivates employees according to over 40 years of motivation surveys; *International Journal of Manpower*, 18 (3)
- Wolfinger N. H. (2002); On writing fieldnotes: collection strategies and background expectancies; *Qualitative Research*, 2 (1), 85-95
- Womack J. P., Jones D. T., Roos D. (1990); *The Machine that Changed the World*; New York: Macmillan Publishing Company; 77-80
- Wong C., Campion M. A. (1991); Development and test of a task level model of motivation job design; *Journal of Applied Psychology*, 76, 825-837
- Yasin M. M., Martin J., Czuchry A. (2000); An empirical investigation of international project management practices: The role of international experience; *Project Management Journal*, 31 (2), 20-30
- Yin R. K. (2003); *Case Study Research – Design and Methods*, 3rd Edition; Thousand Oaks: Sage Publications
- Yin R. K. (2003b); *Applications of Case Study Research*, 2nd Edition; Thousand Oaks: Sage Publications